PLANNING COMMITTEE

Cambridgeshire County Council

Date:Thursday, 21 July 2016

Democratic and Members' Services
Quentin Baker
LGSS Director: Lawand Governance

10:00hr

Shire Hall
Castle Hill
Cambridge
CB3 0AP

Kreis Viersen Room
Shire Hall, Castle Hill, Cambridge, CB3 0AP

AGENDA

Open to Public and Press

1	**Apologies for absence and declarations of interest** *Guidance on declaring interests is available at http://tinyurl.com/ccc-dec-of-interests*	
2	**Minutes 16th June 2016**	**3 - 28**
	PLANNING APPLICATIONS	
3	**C-5010-10-CW, Nationwide Recycling Ltd, Cambridge, CB5 8JZ**	**29 - 44**
4	**S-0008-15-CW Pyrolysis Plant Thriplow SG8 7RR**	**45 - 174**
	ITEMS FOR INFORMATION	
5	**Summary of Decisions Made Under Delegated Powers**	**175 - 178**

The Planning Committee comprises the following members:

Councillor David Connor (Chairman) Councillor Mandy Smith (Vice-Chairwoman)

Councillor Peter Ashcroft Councillor Barbara Ashwood Councillor Lynda Harford Councillor Bill Hunt Councillor Sebastian Kindersley Councillor Alan Lay Councillor Mervyn Loynes Councillor Mike Mason Councillor Jocelynne Scutt

For more information about this meeting, including access arrangements and facilities for people with disabilities, please contact

Clerk Name: Daniel Snowdon

Clerk Telephone: 01223 699177

Clerk Email: daniel.snowdon@cambridgeshire.gov.uk

The County Council is committed to open government and members of the public are welcome to attend Committee meetings. It supports the principle of transparency and encourages filming, recording and taking photographs at meetings that are open to the public. It also welcomes the use of social networking and micro-blogging websites (such as Twitter and Facebook) to communicate with people about what is happening, as it happens. These arrangements operate in accordance with a protocol agreed by the Chairman of the Council and political Group Leaders which can be accessed via the following link or made available on request: http://tinyurl.com/ccc-film-record.

Public speaking on the agenda items above is encouraged. Speakers must register their intention to speak by contacting the Democratic Services Officer no later than 12.00 noon three working days before the meeting. Full details of arrangements for public speaking are set out in Part 4, Part 4.4 of the Council's Constitution http://tinyurl.com/cambs-constitution.

The Council does not guarantee the provision of car parking on the Shire Hall site and you will need to use nearby public car parks http://tinyurl.com/ccc-carpark or public transport

PLANNING COMMITTEE: MINUTES

Date: Thursday 16th June 2016

Time: 10.00am – 12.05pm

Place: Kreis Viersen Room, Shire Hall, Cambridge

Present: Councillors P Ashcroft, B Ashwood, D Connor, L Harford, W Hunt, S Kindersley, A Lay, M Loynes, J Scutt and M Smith

186. APOLOGIES AND DECLARATIONS OF INTEREST

Apologies for absence were received from Councillor Mason. There were no declarations of interest.

187. MINUTES – 12TH MAY 2016

The minutes of the Planning Committee meeting held on 12th May 2016 were agreed as a correct record and signed by the Chairman.

The Chairman advised Members that it had been brought to his attention that a member of the public had tried to register their intention to speak against the application within the allocated timescale but due to an IT issue, their request was not received by Democratic Services in time. Therefore on that basis, a member of the public that had registered in time had been informed they would be given the full five minutes to speak. The Chairman therefore proposed to exercise his discretion and amend protocol in this instance and allow all speakers, including those in support of the application, to speak for five minutes. The Chairman highlighted that the amendment was seen to be an exceptional circumstance and as such the adjustment would not be seen to set a precedent for any future meetings of the Planning Committee.

188. EXTENSION TO QUARRY FOR EXTRACTION OF LIMESTONE, PROVISION OF NEW STORAGE BUILDING, IMPORTATION OF INERT FILL, ANCILLARY RECYCLING OF INERT MATERIAL AND REVISED RESTORATION

AT: DIMMOCKS COTE QUARRY, STRETHAM ROAD, WICKEN, ELY, CB7 5XL

FOR: CAMBRIDGESHIRE COUNTY COUNCIL

LPA REF: E/3008/14/CM

Further to a committee site visit having been undertaken on 15 June 2016, the Committee received an application for an extension to the quarry for extraction of limestone, provision of a new storage building, the importation of inert landfill, ancillary recycling of inert material and revised restoration.

Officers highlighted to Members the site setting displaying a plan showing the location of the five Sites of Special Scientific Interest (SSSI), namely Wicken Fen SSSI which was also a Ramsar site and a Special Area of Conservation; the Upware Pit South SSSI; Upware Pit North SSSI; Upware Bridge Pit North SSSI; and the Cam Washes SSSI within the locality. Additionally, the position of Kingfisher's Bridge County Wildlife Site (CWS) was pointed out to

the north of the application site. The position of a neighbouring strip of land in respect of which information had been received relating to its use for the take-off and landing of aircraft; the positions of nearby properties; and the position of the site in relation to the A1123 was also drawn to Members attention.

Photographs of the existing quarry access and site including buildings and activity were displayed. A plan was displayed showing the locations of Dimmocks Cote Moorings; numbers 40, 38A and 36 Stretham Road; the Kingfisher's Bridge visitor building; and High Fen Farmhouse, a listed building.

Officer's stated that the proposed extraction of limestone would be carried out over a period of eighteen and a half years in thirteen phases of operation. The proposed landfilling of inert waste would also take place in 13 phases. Copies of drawings showing the phasing plan, phases 1 and 13, and the proposed restoration plan, were also displayed and the positions of the proposed building and the proposed waste recycling areas were also identified. Attention was drawn to fencing that would be erected to protect the Great Crested Newt population in areas of the quarry that had re-vegetated.

During discussion:

- Members were informed that the site would receive mixed loads of soil and inert waste. 35,000 tonnes of waste would be received per annum of which approximately 5,000 tonnes would be recyclable material and leave the site which equated to 15% of the total waste received.

- Officers explained that the proposals had been examined in terms of their effect on the Minerals and Waste development plan. Officers were satisfied that the delivery of inert waste at the site would not prejudice strategic sites at Block Fen. It was also noted that allocations within the Mineral and Waste Site Specific Proposals Plan had been made based on existing capacity within Cambridgeshire and Peterborough, therefore the policy assessment was particularly relevant in this case.

- It was questioned whether the airstrip was registered as an emergency landing strip. Officers were unsure and recommended that the owner of the airstrip would be better placed to confirm this. However, they understood that it was booked for flights / landings etc. to take place for less than 28 days per year under permitted development rights so it was unlikely that it would take emergency landings. However, it was agreed that this point would be parked and if required checked with Mr Bent as the landowner.

- It was confirmed that the Great Crested Newt population would be free to migrate once restoration work had been completed and that the restoration plans were consistent with the habitat needs of the newts.

- Attention was drawn to forty-eight letters of objection having been referred to (in relation to paragraph 6.27 of the officer report). It was also confirmed that one letter in support of the application had been received. Officers reminded Members it was the content of the representations made that was of most importance rather than the volume as they had to contain a valid planning consideration.

The Chairman read out a statement from Councillor Coralie Green on behalf of East Cambridgeshire District Council in which she formally requested that members of the Planning Committee consider the concerns she raised as part of her objection to the planning application. In particular she drew members attention to the issues related to the traffic impacts on the surrounding villages and the impact this would have on the local residents.

Following the above statement members:

- Sought clarification regarding the potential increase in vehicle movements. Officers highlighted paragraphs 8.56 and 8.57 of the report that stated that the average rate of movements per hour for the entire proposal would be expected to generate, 35 Heavy Commercial Vehicle (HCV) movements per day into and out of the application site. Members were informed that when assessing the vehicle movements the applicant was required to test the maximum number of movements if the site was operating at full capacity over a period of a month.

- Expressed concern that the impact of the vehicle movements relating to the extraction of mineral would not be consistent on villages as there would be periods of intense activity because the site was quarried in “campaigns”, which would generate more vehicle movements. Officers advised that the quarried material would be stored on site; owing to the site only being able to accommodate a small number of HCVs the material would not leave at the same time. Reference was made to the mineral that was still evident on site during the member site visit from the last campaign and it was possible to see the limited space on site to operate; it was therefore unlikely that movement relating to the mineral process would be increased above existing rates.

Speaking on behalf of the applicant, Mr Ted Clover informed Members that Francis Flower were a family owned business that operated across a number of sites in the United Kingdom. Francis Flower supplied over 90% of the filler for the UK asphalt industry. The site had operated for many years without complaint. Francis Flower would be able to supply 70% of the asphalt requirement for the eastern region, the south east and London if the application was approved and the application was vital for the future development of the country, particularly with the growth agenda. The next nearest available sources of material were Derby and Somerset. The proposed restoration had been designed to deliver a landform that addresses a range of planning requirements which included protecting the existing water environment, protecting the ecological interest both within and adjoining the site, retaining the best and most versatile agricultural soil resource whilst seeking to reduce the need for long term dewatering and achieving a stable restoration scheme. Mr Clover emphasised the employment benefits of the development and was confident that the site could be quarried and restored with minimal impact on the environment.

In response to Members questions Mr Clover:

- Explained that currently there were 6,000 vehicular movements per annum. However, owing to tonnage and space constraints on the site, it was likely that the mineral movements were likely to continue at the same rates of approximately 11 movements per day. What had been addressed for highways was the fluctuations over a day, so while there would be fluctuations over the day and year due to agricultural demand around September; the maximum average number of daily movements assessed was 35, and taking everything into account on a worst case scenario 80 movements were assessed, although in reality what was proposed was 72. The site would be unable to generate HCV movements of 21,000 per year that had been quoted by an objector as the site could not accommodate that number of vehicles. Confusion has come about by taking the maximums and multiplied up by the days of the years. However, to clarify all vehicle movements proposed per annum would be 9,500 which included the infill operations and this was proposed to be controlled by officers through the use of conditions to limit the rates of materials.

- In relation to the extraction of mineral, drew attention to the site only being able to accommodate 2 HCVs per hour and therefore there would be a steady flow of HCVs; around 10 per day. Many HCVs could not be back filled with recyclates because the HCVs were specialist vehicles and were unsuitable for that purpose. He explained further that it was not like a sand and gravel quarry where it was possible to backload most loads, as such the transport assessment did not account for any back-loading therefore, it was based on the worst case scenario.

- Acknowledged that confusion had arisen with the general public in relation to the transport figures owing to different measurements e.g. annually, daily and hourly etc. and that it was understandable that the local villages wanted to understand the true impact. It was confirmed again that the existing is 6,000 vehicular movements per annum with approximately one third travelling through Wicken and that with the waste element all vehicle movements proposed would be 9,500. The application would result in a 50% increase in vehicle movements.

- Explained that the row of trees that were situated close to the observation site were proposed to be removed as part of the proposal. These would eventually, pending discussions with Cambridgeshire County Council, need to be removed if the application was not granted as the material they were planted in would be required for the restoration of the existing site.

- In relation to concerns over the quality of water and the guarantees able to give the SSSIs, explained that a bespoke waste management license had to be obtained from the Environment Agency (EA) owing to the specialist nature of the site. A transfer note would be received detailing the infill received on site. All material would be inspected on arrival then tipped into an engineered, impermeable cell. The EA required that the site be lined and engineered to a higher standard than most inert waste management sites. Once sealed in the groundwater would not come into contact with waste from the site. The site relied on being pumped twice daily and there were safeguards in place in case of emergency or mechanical failures; which meant that water could be stopped from leaving the site in the event of any spill. With the restoration proposed, water entered between the junction of the grey and white levels, which was shown by officers on the presentation slides, which was why the inert fill was only proposed to go up to the grey area. The limestone comprised of 2 layers, of which the lower grey layer was all but impermeable and the cell would be constructed within the layer of grey limestone. The drainage ditch, as pointed out by officers using the restoration plan side, was proposed to intercept the water and retain and maintain water quality.

- Confirmed that inert waste that would be imported into the site was insoluble and therefore there would be no leachate. As such only moisture was likely to enter the cell when placing soils but this would not permeate the cells to the groundwater flow.

Speaking in support of the application, Dr Simon Kelly, a self- employed geologist who represented the Cambridgeshire Geosite Team and independent of the quarry, highlighted the long history of quarries in the area and the unique nature of the site. The limestone outcrop was minute in geological terms – stretching only 5km northwards from Upware. However, it contained a diverse shallow marine subtropical fauna that was approximately 150 million years old and was hugely significant internationally and could be described as Cambridgeshire's answer to a marine Jurassic Park. The site was abundant in the remains of sea urchins, molluscs and reptiles with over 150 species recorded. It was the only locality for Dimmocks Cote Marl. The quarry was invaluable for academic research, school trips, undergraduates, geologists and the Paleontological Association. The quarry processes exposed new material for research and without the proposed expansion; the limestone at the site as a teaching facility would deteriorate.

Dr Kelly stated that if quarrying ceases a significant, unique and long-standing Cambridgeshire industry would become extinct. Quarrying exposed new surfaces for geological examination. If the quarry could not expand, the quality of scientific collection - e.g., fossils and geological data, would rapidly deteriorate and the Dimmocks Cote Marl would soon become inaccessible. The teaching quality of the site would therefore correspondingly deteriorate.

Dr Kelly expressed concerns about contamination regarding the inert waste that was proposed to be deposited at the site and drew attention to the need for strict controls and monitoring. However, he acknowledged that the nearby geological SSSI's were all originally industrial sites working without the strict controls now in place.

In response to Members questions Dr Kelly:

- Explained that sites deteriorate over time. The quality of material that was able to be collected from the former working pits such as Commissioners Pit (South Pit) was very limited and can now only access the rock in very small areas.
- the educational benefits of the site as a place of academic research.
- Expressed the hope that when the works Emphasised were completed by 2037 there would still be a SSSI and the works would expose new material for research in the future.

Speaking against the application Mr Tim Bent informed the Committee of his objections. Mr Bent lived directly north of the quarry, at Kingfishers Bridge House, identified as 40 Stretham Road. The current operations at the quarry were inaudible but expressed concerns that the extension and change of use would have an impact on his enjoyment of the land so was relying on members of the Planning Committee to safeguard his amenity. Mr Bent appreciated the conditions that had been applied to the proposed development but the application would impact on his quiet home. The application was also inconsistent with the Minerals and Waste Core Strategy. The airstrip that was part of Mr Bent's property and shared a boundary with the quarry had been registered with VFR Flight Guide Ltd for a number of years. Mr Bent noted that Francis Flower had recognised the potential hazard of overhead power cables to landing aircraft and had agreed at considerable cost to bury the cables underground. However, he questioned the safety of the airstrip in line with Policy CS34 (neighbouring land uses) and National Planning Policy Framework (NPPF) paragraph 114 where there should be no adverse impacts on air safety, noting the depth into the quarry (6 metres) and in the absence of a bund along the northern boundary. Mr Bent also highlighted the potential pollution that could occur as a result of the need to extract clay from the site for the required cap and liner and the impacts associated with moving it and compacting it. He also raised concerns about the traffic movements to the site as he did not agree with the numbers quoted.

In response to a Member's question Mr Bent acknowledged that any financial benefit of the application would be realised by the applicant and not geologists and noted the educational benefit of the site, but argued that the educational benefit did not outweigh the impact that the application would have on villages in the local area. Mr Bent also drew attention to what he perceived to be contradictory information supplied by the applicant regarding proposed vehicle movements and that the agent had contradicted himself during his presentation.

Speaking against the application Mr Andrew Green explained that he had no objection to the quarry extension or to the continued operation of the quarry. However, he did object to the change of use for the site in relation to infilling and the creation of a recycling business.

Mr Green stated that he was the founding member of the Kingfisher Bridge and the SSSI's / CWS. He acknowledged that the project required a water supply from the quarry. He stated that the current proposal suggested this would be provided and pumped in perpetuity.

Mr Green believed that it would be highly unlikely that the level of checking and monitoring of inert waste delivered to the site would be possible. It was inevitable that there would be pollution of the water supply with the immediate loss of ecosystems and SSSIs. Mr Green emphasised the sensitivity of the location and therefore the site should not become a recycling centre, or be allowed to deal with waste.

In response to a Member question, Mr Green explained that the ability of the operator to inspect each load of waste delivered to the site was questionable and expressed doubts regarding the sustainability of the proposed clay cap as during a dry summer the clay would dry and crack; rain water would then be able to permeate the cap and pollution would therefore leach from the site. The application liner represented an experiment that had not been demonstrated to work. The alternative was a plastic liner that may not last.

The Chairman requested that Members noted it was for the Environment Agency to monitor the operation of the site with regard to the importation of inert waste. It was not for the Planning Committee to question the ability of the relevant agencies to monitor and enforce conditions at the site.

The Local Member for Soham and Fordham Villages, Councillor Joshua Schumann addressed the Committee. Councillor Schumann, highlighted the concerns of local residents regarding the inert landfill operation and acknowledged that he was representing Local Members that were unable to attend. Councillor Schumann drew Members attention to the recent debate at Full Council regarding capacity on the A10 and A142 and increased vehicle movements would have a significant detrimental impact. The application would utilise these routes, already at capacity, which would further exacerbate an existing problem.

Councillor Schumann highlighted that local residents had little objection to the quarry's activities but had concerns regarding the proposed change of use regarding recycling as it was inconsistent with the Waste and Minerals Core Plan and national planning policy. He requested Members note that whilst officers used the term 'concerns' within the report, they were in fact vehement objections. He also stated there were very few community benefits to local villages, although noted the educational importance of the quarry. Furthermore, he emphasised the potential risks of a landfill site being situated next to SSSIs.

Councillor Schumann drew attention to the objections received from Local Members, Parish Councils and M.P.s for the area.

In response to Members questions Councillor Schumann:

- Explained that it would be possible to refuse the application on grounds of impact on traffic and potential for pollution for SSSIs. However, he was of the opinion that the pollution issue could be challenged, but the traffic movements could be defended on the grounds that they would be significant in their increase. In addition he highlighted that it was contrary to planning policy so in planning terms it could be refused. He acknowledged that the application had to be considered as one but emphasised concerns regarding the importation of inert waste.
- Noted that while the material extracted at the site was important to the national infrastructure and that there was a requirement to consider the future in relation to

growth, it did not outweigh the demonstrable harm it would have on local communities from the traffic movements

- Agreed that it would not be unreasonable to consider that traffic could go straight over and on the A1123 instead of onto the A10, particularly as the A10 was not always the most free-flowing route so they might seek alternative routes. It was acknowledged that a routeing map was proposed as part of the draft planning conditions that addressed the point.

During discussion of report:

- It was confirmed with officers that material that would be deposited at the quarry site would, depending on where it originated from, travel along the same roads namely the A10 to be deposited at the Block Fen site. Therefore the traffic would represent a displacement rather that an increase in the overall traffic level.

- Clarification was sought regarding the opening hours of the site and why exceptions had been listed. Officers confirmed that operations would not commence outside of the permitted hours and the exceptions took account of what needed to take place outside of the controlled hours, in particular it was explained that the tanker lorry that would arrive and leave late at night was a movement that occurred at the site already. Members noted that the site currently operated with fewer controls and the application provided the opportunity to greatly tighten operation of the site through the imposition of new conditions.

- The Local Member for Stretham at East Cambridgeshire District Council and Haddenham for Cambridgeshire County Council drew Members attention to the unique ecological surroundings to the quarry. Councilor Hunt noted the proposed routing agreements that were recommended as conditions but expressed concern for their enforceability and highlighted the concerns of local residents regarding traffic. Councillor Hunt therefore proposed that the application be refused on grounds of residential amenity, harm to the airstrip, highways safety and damage to SSSI's and the Kingfisher Bridge site with pollution and traffic being the key points. However, the Chairman advised that further debate should take place before proposals were made.

- A Member noted they had no objection with the quarry, but had concerns about the waste and the impact on the SSSI's.

- A Member thanked officers for the clear and concise report presented. Members were reliant on experts and ignored their advice at great peril to the Council. The reasons given for refusal of the application were not supported by the officer's report. Concerns regarding traffic would be largely unfounded as the material would be deposited at other sites nearby. While the concerns of objectors regarding pollution were noted; the applicant had demonstrated that controls would be in place that mitigated such risk and noted that it would be the role of the Environment Agency in the monitoring and enforcement of pollution, which sat outside the remit of the Planning Committee.

- Confirmed that the EA and Natural England had been consulted, agreed the draft conditions and had no objection to the application subject to the recommended conditions being imposed

- Sought clarity regarding the pollution controls that would be enforced if the application was successful. Officers explained that the applicant would be required to carry out monitoring, that visits to the site would be undertaken by the EA and that the Council would inspect the site to ensure compliance from a planning perspective. Natural England had a key interest in the site and had worked closely with the EA and the

Council on developing the conditions for the application. Both organisations were happy that the risks associated with the proposed operations at the site could be mitigated.

- A Member drew the Committee's attention to its role in judging the application against material planning considerations and to consider the advice of experts. It was noted that the competency of a planning committee is viewed on the material facts and steer from experts / officers.

- Officers clarified that when they were asked about whether the waste and related traffic movements could be seen as a displacement of waste rather than new movements the example was based on Block Fen and that the waste at that point was assumed to be coming from growth sites in and around Cambridge – although it was noted that the origin of the waste would impact on the roads to be used.

Officers clarified that the initial consultation followed the relevant regulation requirements and only dealt with the Parish Council in which the application sat. A member noted it was the proposals on page 14 of the report in relation to the ancillary recycling and the waste elements that required control and monitoring.

Following the debate regarding the application the Chairman acknowledged the earlier proposal made by Councillor Hunt to go against officers' recommendation and refuse the application. This was seconded by Councillor Loynes and when put to the vote the proposal was lost.

It was therefore resolved to grant planning permission subject to the conditions set out in appendix A to these minutes.

189. SUMMARY OF DECISIONS MADE UNDER DELEGATED POWERS

It was resolved to note the report.

190. DATE OF NEXT MEETING: THURSDAY 21ST JULY 2016

Chairman

Appendix A

Schedule of Conditions:-

E/3008/14/CM
Without prejudice, Schedule of Draft Conditions:-

Commencement

1. The development hereby permitted shall be commenced not later than three years from the date of this permission. Within seven days of the commencement of operations, the operator shall notify the Mineral and Waste Planning Authority in writing of the exact start date.

   Reason: In accordance with the requirements of section 91 of the Town and Country Planning Act 1990 as amended by section 51 of the Planning and Compulsory Purchase Act 2004

Approved Plans

2. The development hereby permitted shall not be proceed except in accordance with the application forms, planning statement and Environmental Statement (accompanied by certificates dated 17th November 2014) as amended by the additional supporting information and amendments included within and accompanying letters dated 18 February 2015 (capacity figures); 11 August 2015 (including Transport Addendum July 2015, and Revised Management Plan 13 August 2015, Hydrological Assessment Addendum August 2015); 22 January 2016 (including Revised Aftercare scheme and Geological viewing platform proposal); 15 March 2016 (Lorry Routeing); 22 April 2016 (Dewatering clarification); 31 March 2016 (Clay Capping), and 12 May 2016 (Restoration and Ecology) , and the following conditions. The site shall be worked, engineered, and restored in accordance with the following approved drawings:-

CP/FF/DCN/01	Location Plan dated September 2014
CP/FF/DCN/02	Block plan dated September 2014
CP/FF/DCN/04	Rev a Phasing Plan dated September 2014
CP/FF/DCN/04a	Rev b Phase 1 dated September 2014
CP/FF/DCN/04b	Rev a Phase 2 dated September 2014;
CP/FF/DCN/04c	Rev a Phase 3 dated September 2014
CP/FF/DCN/04d	Rev a Phase 4 dated September 2014
CP/FF/DCN/04e	Rev a Phase 5 dated September 2014
CP/FF/DCN/04f	Rev a Phase 6 dated September 2014
CP/FF/DCN/04g	Rev a Phase 7 dated September 2014
CP/FF/DCN/04h	Rev b Phase 8 dated September 2014
CP/FF/DCN/04i	Rev a Phase 9 dated September 2014
CP/FF/DCN/04j	Rev a Phase 10 dated September 2014
CP/FF/DCN/04k	Rev a Phase 11 dated September 2014
CP/FF/DCN/04l	Rev a Phase 12 dated September 2014
CP/FF/DCN/04m	Rev a Phase 13 dated September 2014
CP/FF/DCN/05	Rev b Restoration Plan dated September 2014 and accompanying key sheet
CP/FF/DCN/06	Sections dated October 2014
CP/FF/DCN/07	Elevations Roof Plan dated June 2014

CP/FF/DCN/10	Advanced Planting dated April 2016
CP/FF/DCN/11	Great Crested Newt Fencing dated April 2016
CP/FF/DCN/13	Recycling Plant (Section and Layout) dated April 2016
CP/FF/DCN/14	Relocated Upware Bridge Pit North SSSI dated May 2016

(Note – Drawing number CP/FF/DCN/08 was superseded and there is no submitted plan numbered CP/FF/DCN/09. Drawing number CP/FF/DCN12 relates to an Electricity Easement which is relies upon permitted development rights).

Reason: For the avoidance of doubt and to minimise harm to the local environment in accordance with policies CS1, CS2, CS24, CS25, CS34, and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV 9 of the East Cambridgeshire Local Plan (2015).

Working Time Limit

3. All winning and working of mineral, waste importation, ancillary waste management processes, and the deposit of waste shall cease no later than 31st December 2035.

Reason: To ensure proper and expeditious restoration of the site and to ensure that the ancillary waste management facilities are limited to the life of the operations in accordance with policies CS41 and CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Removal of storage building and remaining items

4. The storage building hereby permitted and all items including vehicles, plant and equipment relating to the development hereby approved shall be removed from the application site in its entirety by no later than 18 months from the permanent cessation of the extraction of mineral within the site edged red on drawing number CP/FF/DCN/02 dated September 2014 or no later than 30th June 2037, whichever is the soonest.

Reason: To ensure proper and expeditious restoration of the site and to ensure that the ancillary waste management facilities are limited to the life of the operations in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

5. Restoration time limit

The site edged red on drawing number CP/FF/DCN/02 dated September 2014 shall be restored in its entirely in accordance with Restoration Plan Drawing Number CP/FF/DCN/05 Rev b Dated September 2014 no later than 21 months of the permanent cessation of mineral extraction within the site edged red on drawing number CP/FF/DCN/02 dated September 2014 or no later than 30th September 2037, whichever is the soonest.

Reason: To ensure proper and expeditious restoration of the site and to ensure that the ancillary waste management facilities are limited to the life of the operations in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Vehicular Access

6. Vehicular access and egress to and from the site edged red on drawing number CP/FF/DCN/02 dated September 2014 shall only be gained via the existing quarry access, which is annotated on drawing number CP/FF/DCN/02.

   Reason: To ensure satisfactory access to the site in the interests of highway safety in accordance with policy CS32 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and COM7 of the East Cambridgeshire Local Plan (2015).

   Inert waste and ancillary recycling

7. No waste except inert waste consisting of loads which shall include soil materials intended for the implementation of the permission hereby granted, shall be received at, processed, or deposited within the site edged red on drawing number CP/FF/DCN/02 dated September 2014.

   Reason: To ensure the appropriate development and restoration of the site and to protect against pollution and the amenities of the locality in accordance with policies CS2, CS14, CS22, CS29 CS34, and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and ENV9 of the East Cambridgeshire Local Plan (2015)

   Distance of arising waste

8. No waste arising at a distance greater than a 25 mile radius of the application site as shown on Plan CCC1 Waste Catchment Area attached shall be received at or deposited on the site edged red on drawing number CP/FF/DCN/02 dated September 2014. The operator shall maintain a written record at the site of deliveries of the origin of waste delivered, the tonnage, and the date of delivery. These records shall be maintained and the results collated within a report to be supplied to the Mineral and Waste Planning Authority within 10 working days of a written request.

   Reason: To limit the movement of waste when taken cumulatively with existing mineral operations, in accordance with policy CS29 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

   Mineral extraction limit

9. No more than 70,000 tonnes of mineral shall be extracted from and removed from the site, within any one calendar year.

   Reason: To limit the development, including vehicular movements proposed allowing for reasonable operational flexibility, in the interests of residential amenity and to ensure the appropriate working of the mineral reserve in accordance with policies CS1, CS32, and CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

   Inert waste limit

10. No more than 40,000 tonnes of inert waste shall be received at the site edged red on drawing number CP/FF/DCN/02 dated September 2014 within any one calendar year.

    Reason: To limit the development, including vehicular movements proposed allowing for reasonable operational flexibility, in the interests of residential amenity and to ensure the appropriate working of the mineral reserve in accordance with policies CS1, CS32, and CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Mineral importation limit

11. No more than 40,000 tonnes of imported mineral shall be received at the area shown outlined in red on Plan CCC2 Mineral Importation Area attached within any one calendar year. No imported minerals shall be deposited outside the area shown outlined in red on Plan CCC2 Mineral Importation Area attached. The importation of mineral is permitted for a time limited period only expiring on 31 December 2025 or on cessation of the processing of mineral extracted from the site edged red on drawing number CP/FF/DCN/02 dated September 2014, whichever is the sooner. The operator shall maintain a written, dated record at the site of the amount and date of all mineral importation into the area shown outlined in red on Plan CCC2 Mineral Importation Area attached. These records shall be maintained and the results collated within a report to be supplied to the Mineral and Waste Planning Authority within 10 working days of a written request.

Reason: To limit the development, including vehicular movements proposed allowing for reasonable operational flexibility, in the interests of residential amenity and to be consistent with the importation of minerals granted in planning permission E/03010/12/CM in accordance with policies CS1, CS32, and CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

12. Hours of operation

No activity whatsoever shall take place within the application site edged red on drawing number CP/FF/DCN/02 dated September 2014 outside of the hours of:-

0700 – 1800 each day on Mondays to Fridays inclusive and
0700 - 13.00 each Saturday.

Subject to the following exceptions:-

a) Activity relating to Minerals processing within the plant area as hatched on Plan CCC3 Mineral Processing Activity Area attached (including the movements of bulk tankers), which shall be permitted only between the hours of:-

0700 – 2200 each day on Mondays to Saturdays.

b) No more than 1 bulk tanker lorry shall enter or leave the site between the hours of 22:00 and 07:00 for the purposes of loading or unloading. Vehicular movements during that time shall be restricted to the plant area as shown on Plan CCC3 Mineral Processing Activity Area attached.

c) Activity relating to employees arriving to start work and leaving work and for essential maintenance.

d) Action being taken in an immediate emergency and /or to address immediate health and safety issues.

Other than in accordance with exceptions c) and d) above, no activity shall take place within the application site edged red on drawing number CP/FF/DCN/02 dated September 2014 on Sundays, Bank or Public Holidays.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

13. Noise limits

The level of noise emitted from the site shall not exceed the following limits at a distance of one metre from the façade of the specified noise sensitive property to which they refer when measured and, or calculated in accordance with BS4142 and the National Planning Practice Guidance:-

Location	Noise Limit (dBLAeq, I hour)
Kingfishers Bridge House (40 Stretham Road)	52
Dimmocks Cote Farm	45
Red Barn Farm	53

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

14. Lorry Routeing

The application site edged red on drawing number CP/FF/DCN/02 dated September 2014 shall not be operated except in accordance with the lorry routeing scheme, accompanying Clover Planning's letter dated 10 March 2016, and Plan CCC4 Traffic Routeing attached.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

15. Register of complaints

A register of all complaints received in relation to the development shall be kept at the application site edged red on drawing number CP/FF/DCN/02 September 2014 and shall be made available for inspection by officers of the Mineral and Waste Planning Authority upon request. All measures taken to prevent recurrence of a breach shall be recorded in the register of complaints.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

16. Noise Management Plan

No development shall commence until a noise management plan, which shall include but not be limited to:-

a. Provisions for maintenance of haul roads, speed limit of maximum of 10 miles per hour within the site and avoidance of excessive revving;

b. Details of any new haul roads (to be sited as far away as possible from residential properties) and of the maintenance programme for the haul roads;
c. Locations and depths of siting of all crushers and screeners (to be located as far away from residential properties as possible and the crusher should be located at a depth of 6 metres of more within the quarry);
d. Installation and use of broadband reversing alarms and their use on all vehicles working on site;
e. Use of modern and well maintained quietest available equipment and plant at all times and in conformity with EU Directives including details of the use of enclosures and screens;
f. Shutting down of equipment when not in use where practicable and avoidance of unnecessary revving;
g. Minimising height of material drops from lorries and other plant and use of rubber line chutes, dumpers and transfer points to reduce impact noise from falling material;
h. Existing pumps to remain within the existing quarry as required by condition 17 below;
i. Consideration in relation to Sections 8.2 and 8.3 of BS5228:1 (Code of practice for noise and vibration on construction and open sites – Part 1: Noise) regarding Control of Noise;
j. Details of regular toolbox talks/training for staff members to ensure proper use of tools and equipment and avoidance of unnecessary noise and positioning of equipment to reduce noise to neighbourhood;
k. Details to limit use of any noisy plant or vehicles;
l. Details for starting up plant sequentially rather than all together;
m. Details for ensuring noise control measures fitted on plant and vehicles are utilised when in operation;
n. Details of consideration of acoustic treatment or retrofitting of existing plant;
o. Details of the procedure to investigate and to address all noise complaints, which may be received, who is responsible for the investigation and how they can be contacted.

shall have been submitted to and approved in writing by the Mineral and Waste Planning Authority. No development shall commence until all of the provisions of the approved noise management plan are fully in place. They shall be thereafter retained and no activity shall take place within the application site edged red on drawing number CP/FF/DCN/02 dated September 2014 unless fully in accordance with the approved noise management plan.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Dust Control

17. No activity shall take place within the application site edged red on drawing number CP/FF/DCN/02 dated September 2014 unless fully in accordance with the approved dust control measures stated in paragraphs 9.40 to 9.46 inclusive of Chapter 9 Dust Assessment of the Environmental Statement October 2014, which shall be fully implemented and adhered to.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

18. Pump Details

No pump shall be used within any part of the hereby permitted extended area of the quarry (Phases 1-13 inclusive) and no new pump installed or existing pump replaced on the site edged red on drawing number CP/FF/DCN/02 dated September 2014 except in accordance with details which shall have been previously been submitted to and agreed in writing by the Minerals and Waste Planning Authority.

Reason: In the interests of limiting the effects of noise on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Limit Mineral Stockpile Heights

19. Within any part of the hereby permitted extension area (Phases 1-13 inclusive as shown on drawing number CP/FF/DCN/04 Rev a) no stockpile shall exceed 9.50 metres AoD; and within the remainder of the application site edged red on drawing number CP/FF/DCN/02 dated September 2014 no stockpile shall exceed 13 m AoD.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

20. Levels of base of quarry, Clay lining and cap

No waste shall be accepted at or deposited on the site edged red on drawing number CP/FF/DCN/02 dated September 2014 until a scheme showing the levels of the final base of the excavation, the provision of a restoration cap, side and basal liner for each landfill cell has been submitted to and approved in writing by the Mineral and Waste Planning Authority.

No waste shall be deposited in any cell unless the side and basal liner has been completed in accordance with the approved scheme and no restoration soils shall be replaced unless the clay capping of the cell has been completed in accordance with the approved details.

The development shall be constructed wholly in accordance with the approved scheme.

Reason: To ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pits SSSI's and Upware Bridge Pit North SSSI and Cam Washes SSSI, the Kingfisher Bridge County Wildlife Site and the environment of the locality are not adversely impacted by any contaminants from the proposed inert landfill or as a result of mineral extraction and to protect and prevent the pollution of controlled waters in accordance with policies CS2,CS35 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and COM9 of the East Cambridgeshire Local Plan (2015).

Storage of Inert Waste and Recyclates

21. No inert waste or recovered recyclates shall be stored or processed outside of the bunded area (shown to contain the waste processing screener and crusher) at any time, as shown on the relevant phase drawings CP/FF/DCN/04a Rev b to CP/FF/DCN/04m Rev a in relation to the phase that is being worked.

Reason: To ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pits SSSI's and Upware Bridge Pit North SSSI and Cam Washes SSSIWicken Fen Upware Pits and Cam Washes, the Kingfisher Bridge County Wildlife Site and the environment of the locality are not adversely impacted by any contaminants from the proposed inert landfill or as a result of mineral extraction and to protect and prevent the pollution of controlled waters in accordance with policies CS2, CS35 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and COM9 (of the East Cambridgeshire Local Plan (2015).

Groundwater Flow

22. No development shall take place until a scheme has been submitted to and approved in writing by the Mineral and Waste Planning Authority in consultation with the Environment Agency and Natural England which demonstrates that there will be no resultant unacceptable risk of obstruction to groundwater flow or unwanted impact on groundwater features or abstractors from this development. The scheme should include but not be limited to:-

    a) Refining the existing conceptual model and carrying out a risk assessment utilising the site specific data to establish the likely impacts from the extension, dewatering and restoration activities on the designated sites including but not being limited to Upware North Pit SSSI;
    b) The installation of an additional borehole (in the proximity of existing boreholes BH14/2 and BH14/3) for the purposes of determining groundwater flow direction in relation to Upware North Pit SSSI;
    c) Details of a pump test and the installation of an observation borehole (in close proximity to the pumped well) at the northern perimeter of the extension to determine the aquifer properties and to produce a site specific radial zone of influence of the extension upon Upware North Pit SSSI and calculations of inflow rates into the quarry void;
    d) Calculations of the inflow rate into the Upware North SSSI;
    e) Details in relation to monitoring the water levels of the Upware North Pit SSSI;
    f) A timetable for implementation.

    The approved scheme shall be implemented it its entirety in accordance with the approved timetable.

    Reason: To ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pits SSSI's and Upware Bridge Pit North SSSI and Cam Washes SSSI, and the Kingfisher Bridge County Wildlife Site, and in particular Upware North Pit SSSI are not adversely impacted as a result of the impact of mineral extraction upon the groundwater flows in in accordance with policies CS2, CS35 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

23. Groundwater and Surface Water Monitoring Phases 1-6

    No development hereby permitted shall commence until a scheme to provide for monitoring groundwater and surface water quantity and quality throughout each of Phases 1-6 (including an implementation timetable), has been submitted to and approved in writing by the Mineral and Waste Planning Authority.

- No development shall take place until all of the water monitoring devices relied upon by the approved scheme are provided in their entirety and are operational.
- Working phases 1-6 shall only be implemented entirely in accordance with the approved monitoring scheme. Monitoring shall be carried out in accordance with the timetable within the approved scheme.
- The Mineral and Waste Planning Authority shall be advised in writing of all significant changes when they arise and of details of any mitigation measures, including a timetable for implementation, shall be submitted to and approved in writing by the Mineral and Waste Planning Authority.
- Monitoring results shall be submitted no less than annually and details of any necessary mitigation measures shall be submitted to accompany each monitoring report and approved in writing by the Mineral and Waste Planning Authority in consultation with the Environment Agency and Natural England, in accordance with the timetable to be contained within the approved scheme.
- All approved mitigation measures shall be implemented in their entirety in accordance with the approved details and timetable.

Reason: To ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pit SSSI's and Upware Bridge Pit North SSSI Cam Washes SSSI, and the Kingfisher Bridge County Wildlife Site, and the environment of the locality are not adversely impacted by any contaminants from the proposed inert landfill or as a result of mineral extraction and to protect and prevent the pollution of controlled waters in accordance with policies CS2, CS35 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and COM9 of the East Cambridgeshire Local Plan (2015). The scheme needs to be submitted, agreed and implemented prior to the commencement of development given that it is expected to involve off-site monitoring facilities on land that is not within the control of the applicant. Additionally monitoring needs to be agreed and in place prior to the commencement of the extraction of mineral or the deposit of waste hereby permitted.

24. Groundwater and Surface Water Monitoring Phases 7-13

No development hereby permitted shall commence upon phase 7 as shown on drawing number CP/FF/DCN/04g Rev a dated September 2014 until a scheme to provide for monitoring groundwater and surface water quantity and quality throughout each of working phases 7-13 (including an implementation timetable), has been submitted to and approved in writing by the Mineral and Waste Planning Authority.

- Working phases 7-13 shall only be implemented entirely in accordance with the approved scheme.
- Monitoring shall be carried out in accordance with the timetable within the approved scheme.
- The Mineral and Waste Planning Authority shall be advised in writing of all significant changes when they arise and of details of any mitigation measures, including a timetable for implementation, shall be submitted to and approved in writing by the Mineral and Waste Planning Authority.
- Monitoring results shall be submitted no less than annually and details of any necessary mitigation measures shall be submitted to accompany each monitoring report and approved in writing by the Mineral and Waste Planning Authority in consultation with the Environment Agency and Natural England, in accordance with the timetable to be contained within the approved scheme.

- All approved mitigation measures shall be implemented in their entirety in accordance with the approved details and timetable.

Reason: To take account of any changes that may occur as mineral extraction moves towards the west in relation to the potential for seepage through the mineral to ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pits SSSI's and Upware Bridge Pit North SSSI, the Cam Washes SSSI and the Kingfisher Bridge County Wildlife Site, and the environment of the locality are not adversely impacted by any contaminants from the proposed inert landfill or as a result of mineral extraction and to protect and prevent the pollution of controlled waters in accordance with policies CS2, CS35 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and COM9 of the East Cambridgeshire Local Plan (2015).

25. Surface Water Management Plan

No development hereby permitted shall commence until a scheme to provide a surface water management plan for the proposed landfill and recycling facility, including a timetable, has been submitted to and approved in writing by the Mineral and Waste Planning Authority in consultation with the Environment Agency. The approved development shall be implemented wholly in accordance with the scheme in accordance with the approved timetable.

Reason: To ensure the particularly sensitive water environment of Wicken Fen SSSI, Ramsar and SAC, Upware North and South Pits SSSI's and Upware Bridge Pit North SSSI and the Cam Washes SSSI and the Kingfisher Bridge County Wildlife Site are not adversely impacted by any contaminants from the proposed inert landfill or as a result of mineral extraction and to protect and prevent the pollution of controlled waters in accordance with policies CS2 and CS39 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

Ecological Design Strategy (EDS)

26. No development shall commence until an ecological design strategy (EDS) addressing mitigation, compensation, enhancements and restoration for protected species, and habitats of ecological value, including but not limited to measures to take account of and protect:-

- Great crested newts (to include a protection and translocation scheme);
- Water vole (to include a protection and translocation scheme as required);
- Breeding birds (to include compensatory measures and provision for removal of habitat that could support breeding birds outside of the nesting season);
- Reptiles (to include a translocation scheme and enhancement of habitat);
- Badgers (to include consideration);

has been submitted to and approved in writing by the Mineral and Waste Planning Authority. The EDS shall include, but not be limited to, the following:-

a) Purpose and conservation objectives for the proposed works;
b) Review of site potential and constraints including an update of the survey and monitoring work;
c) Updated detailed design(s) and/or working method(s) to achieve stated objectives;

d) Final details of ecological features including cross-sections of proposed Great Crested Newt translocation ponds and the depths and grading of water bodies to be formed (including cross sections) and levels;
e) Timetable for implementation of all measures, demonstrating that works are aligned with the proposed phasing of development;
f) Persons responsible for implementing the works; and
g) Details for monitoring and remedial measures.

The EDS shall be implemented entirely in accordance with the approved details and timetable and all features shall be retained in their entirety.

Reason: To protect species and habitat within the application site (including protected species) and to enhance biodiversity and the natural environment in accordance with policies CS25 & CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV7 of the East Cambridgeshire Local Plan (2015).

27. Archaeological investigation

No development shall commence upon phase 1 shown on drawing number CF/FF/DCN/04a Rev b until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Mineral and Waste Planning Authority.

Reason: To mitigate the impacts on archaeological remains in accordance with Policy CS36 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV14 of the East Cambridgeshire Local Plan (2015). The condition needs to be pre-commencement given the undergrounding of the power lines.

28. Advanced Planting

Within two months of the commencement of development, or alternatively if development should commence outside of a planting season by no later than the 30th April of the first available planting season following commencement or development, both:

a) the advanced screen hedgerow planting shall be planted in the positions shown on Advanced Planting drawing number CP/FF/DCN/10 dated April 2016; in accordance with the details contained within Appendix 7 of the Planning Statement; and;
b) The reinforcement of the existing frontage hedgerow along the full length of the southern boundary of the site as detailed in paragraph 5.4 of the Landscape Assessment dated 14 November 2014.

shall be planted in their entirety. The reinforcement of the southern boundary frontage hedgerow shall be implemented fully in accordance with size and spacing details, which shall have been previously submitted to and agreed in writing by the Mineral and Waste Planning Authority.

Reason: To ensure that planting is implemented to mitigate visual impact in accordance with Policy CS33 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and Policy ENV1 of the East Cambridgeshire Local Plan (2015).

29. Replacement of any failed new planting

If within a period of five years from the date of the planting of any tree or shrub in accordance with condition 27 above and Appendix 7 of the supporting Planning Statement that tree or shrub, or any tree or shrub planted in replacement for it, is removed, uprooted or destroyed or dies, another tree or shrub of the same species and size as that originally planted shall be planted in the same location.

Reason: To ensure that planting is established to mitigate visual impact in accordance with Policy CS33 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and Policy ENV1 of the East Cambridgeshire Local Plan (2015).

30. Protection of existing vegetation and habitat

The existing trees, bushes and hedgerows within the site edged red on drawing number CP/FF/DCN/02 dated September 2014 shall be retained and shall not be felled, lopped, topped or removed in areas outside of the current or succeeding phase of mineral working without prior written consent of the Mineral and Waste Planning Authority. Any such vegetation removed without consent, dying or being severely damaged or becoming seriously diseased as a result of the operations hereby permitted shall be replaced with trees or bushes of the same size and species in the same location unless otherwise previously agreed in writing by the Mineral and Waste Planning Authority.

Reason: To ensure that the removal of vegetation is controlled to minimise impact upon habitats in accordance with Policy CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and Policy ENV1 of the East Cambridgeshire Local Plan (2015).

31. Re-location and maintenance of geological interest

No mineral shall be extracted from within Phase 1 shown on drawing number CP/FF/DCN/04a rev b, until a scheme for the partial relocation of the Upware Bridge Pit North SSSI and geological access arrangements to the site including, but not limited to, a methodology and timetabled programme to facilitate the investigation and recording of geological interest throughout the duration of the extraction, creation and maintenance of a newly exposed face of geological interest and access arrangement has been submitted to and approved in writing by the Mineral and Waste Planning Authority, in consultation with Natural England. The Approved scheme shall be implemented in its entirety throughout the duration of the mineral extraction hereby permitted in accordance with the approved timetable.

Reason: In the interest of recording and protecting geological interest of the application site in accordance with Policy CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and Policy ENV7 of the East Cambridgeshire Local Plan (2015).

32. Access to the Upware Bridge Pit North Site of Special Scientific Interest (SSSI), Bird Hide, and Permissive Footpath

No mineral shall be extracted from Phase 13 as shown on drawing number CP/FF/DCN/04m Rev a until schemes for the final restoration and maintenance and retention proposals, maintenance to be for a 10 year period commencing upon completion of final restoration to bring the relocated Upware Bridge Pit North geological SSSI, the permissive path and the bird hide into a condition suitable for amenity use, shall have been submitted to and approved in writing by the Mineral and Waste Planning Authority. The scheme shall include, but not be limited to:-

a) Details of access arrangements for the Site of Scientific Interest within the Quarry;
b) Elevation details including materials and finish of the hide;
c) Details of the permissive footpath; and
d) A timetable for the implementation of each part of the scheme.

The approved scheme shall be implemented in its entirety in accordance with the approved details and timetable.

Reason: In the interest of enabling observation of the geological and ecological interest of the application site in accordance with policies CS25, CS35 and CS37 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and Policy ENV1 of the East Cambridgeshire Local Plan (2015).

33. Clean commercial vehicles upon leaving the site

No commercial vehicle shall leave the site unless the wheels and the underside chassis are clean.

Reason In the interests of highway safety and safeguarding local amenity in accordance with Policies CS32 and CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (July 2011).

34. Cleaning of haul road

The surfaced entrance to the haul road shall be cleaned as necessary to prevent materials including mud and debris, being deposited on the public highway.

Reason: In the interests of highway safety and safeguarding local amenity in accordance with Policies CS32 and CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (July 2011).

35. Control of external lighting

No new or replacement external lighting equipment shall be installed on site except in accordance with details that have first been submitted to and approved in writing by the Mineral and Waste Planning Authority. Such details shall ensure that light spillage is minimised.

Reason: To minimise nuisance, light pollution and disturbance in the interests of limiting the effects on local amenity to control the impacts of the development and to comply with policy CS34 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV1 of the East Cambridgeshire Local Plan (2015).

36. Restriction of permitted development rights

Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any subsequent order which supersedes it) no fixed plant, machinery or buildings (with the exception of temporary portable structures for site staff use) shall be erected or placed in the quarry without the prior written approval of the Mineral and Waste Planning Authority.

Reason: To safeguard the biodiversity and geodiversity interests within the application site in accordance with policy CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

37. Soil handling

No soils shall be exported from the site edged red on drawing number CP/FF/DCN/02 dated September 2014.

No soils shall be stripped, stored, handled or replaced except in accordance with the approved phasing drawings and a soil handling scheme for each phase that has submitted to and approved in writing by the Mineral and Waste Planning Authority. The schemes shall be submitted at least three months prior to the expected commencement of stripping of soil and include, but not be limited to, provision for:-

a) Identify clearly the origin, intermediate and final locations of soils for use in the agricultural restoration, as defined by soil units, together with details balancing the quantities, depths, and areas involved (taking into account the approved phasing Drawings);
b) a Scheme of Machine Movements for the stripping and replacement of soils;
c) the separate handling and storage of topsoil and subsoil;
d) the location profile and height of soil stockpiles (top soil bunds shall not exceed 3 metres; Upper subsoils 4 metres; lower subsoils 6 metres and overburden 6 metres in height respectively);
e) the handling of soils between November to March inclusive and when the full volume of soils are in a dry and friable condition including field tests as set out in Appendix 5 of the Agriculture and Soils report within the Environmental Statement accompanying this application;
f) the submission of a plan within 3 months of the completion of the stripping each phase showing the location, contours, and volumes of any soil bunds and identifying the types of soils and soil units there in;
g) details of any additional haul routes;
h) details of grass seeding and management of all soils bunds and stockpiles;
i) avoidance of double handling of soils;
j) Written notification shall be made giving the MPA seven clear working days' notice of the intention to start stripping soils;
k) separation between different types of material;
l) consideration of potential ecological impacts;
m) the timetable for the construction and removal of the screening bunds; and
n) details of how the soils are to be replaced including minimum settled depths of subsoil and topsoils and notification to the Minerals and Waste Planning Authority to facilitate appropriate inspections.

All soil movements shall be carried out entirely in accordance with the approved scheme and approved phasing drawings and the only vehicles used for soil movements shall be those stated on page 12 of Chapter 12 of the Environmental Statement dated 31 October 2014 and/or identified within the approved scheme.

Reason: To protect the quality of the best and most versatile agricultural soils in accordance with policies CS25 and CS38 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

38. Soil handling – vehicle movements

All Plant or vehicle movements (except in the case of an emergency) shall be confined to approved haul routes, or to the overburden/infill surface and shall not cross areas of topsoil and subsoil except for the express purpose of soil stripping or replacement operations.

Reason: To avoid unnecessary compaction and to protect the quality of the best and most versatile agricultural soils in accordance with policies CS25 and CS38 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

39. Top metre of Infill

No objects larger than 150mm in any dimension shall be contained within the metre immediately below the base of the subsoil.

Reason: To ensure appropriate restoration to a condition suitable for agriculture in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011). Larger objects are likely to cause an obstruction to deep cultivations or underdrainage.

40. Phased Restoration and Survey Levels

The site shall be completed in accordance with the submitted phasing plan drawings CP/FF/DCN04 a to m inclusive as listed in Condition 2 of this decision notice and the restoration contours shown on Drawing number CP/FF/DCN/05 Rev b. A survey of the levels shall be submitted within one month of the completion of the restoration of each phase in writing to the Mineral and Waste Planning Authority. A final survey shall be submitted to the Mineral and Waste Planning Authority within one month of the final completion of the restoration.

Reason: In the interests of monitoring the levels of the site to ensure the satisfactory restoration of the site to approved levels in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

41. Differential Settlement

Where differential settlement occurs during the restoration and aftercare periods, all depressions shall be filled to the final settlement contours in accordance with details which shall have been previously submitted to and agreed in writing by the Mineral and Waste Planning Authority.

Reason: To ensure appropriate restoration to a condition suitable for use for agriculture in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

42. Existing Wetland Area

Within three months of the implementation of the planning permission hereby granted, in relation to the area identified as Area A, shown to be enclosed by the Great Crested Newt fence on Plan CCC5 Exiting Wetland Habitat Area to be Protected attached, details of the start date for the implementation of the programme within the Management Plan revised 13 August 2015 for the first 5 year period and the date by which the annual reports shall be provided, which shall include any necessary proposed mitigation measures shall be submitted to and approved in writing by the Mineral and Waste Planning Authority. Within three months of the expiry of the end of year 5 of the implementation of the approved Management Plan in relation to Area A, a review report and proposals for the further management of Area A (for the period until the aftercare scheme for phase 13 as shown of the phasing drawing CP/FF/DCN/04 Rev a is completed) shall be submitted to and approved in writing by the Mineral and Waste Planning Authority. Area A as shown on Plan CCC5 Existing Wetland Habitat Area to be Protected attached shall be managed in accordance with the revised approved details until the aftercare scheme for Phase 13 is implemented.

Reason: To protect species and habitat within the application site (including protected species) and to enhance biodiversity and the natural environment in accordance with policies CS25 and CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV7 of the East Cambridgeshire Local Plan (2015).

43. Nature Conservation and Agricultural Aftercare Scheme

No later than six months prior to the completion of the restoration of Phase 1 (as shown of the phasing drawing CP/FF/DCN/04a Rev b) details of the implementation of the Agricultural Aftercare Scheme (as revised December 2015) and the Management Plan details (including, but not limited to, a timetable and provision for monitoring and any necessary remedial work to be carried out) of a 10 year phased aftercare scheme for the entire site edged red on drawing number CP/FF/DCN/02 dated September 2014 to bring the land to a condition suitable for use for agriculture, conservation and wetland habitat, shall be submitted to and approved in writing by the Mineral and Waste Planning Authority. The approved aftercare scheme shall be implemented in its entirety in accordance with the approved details and including any approved remedial work.

Reason: To protect species and habitat within the application site (including protected species) and to enhance biodiversity and the natural environment in accordance with policies CS25 and CS35 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011) and policy ENV7 of the East Cambridgeshire Local Plan (2015).

Early Cessation

44. Should for any reason the extraction of the mineral from the quarry or the infilling with inert waste cease for a period in excess of 18 months, upon written request of the Mineral and Waste Planning Authority a scheme shall be produced for the restoration of the site, including details of dewatering and submitted for approval in writing by the Mineral and Waste Planning Authority within three months of the date of its written request. All restoration work shall be completed entirely in accordance with the approved scheme within one year of the Mineral and Waste Planning Authority's written request for the submission of a restoration scheme or in accordance with a time limit detailed within a submitted scheme that has been approved in writing by the Mineral and Waste planning Authority.

Reason: To ensure the satisfactory restoration of the site in accordance with policy CS25 of the Cambridgeshire and Peterborough Minerals and Waste Core Strategy (2011).

45. Annual site sales and remaining reserves

Details of annual site sales and remaining reserves shall be submitted to the Mineral and Waste Planning Authority by 31 March each year covering the preceding calendar year (1 January to 31 December). Each submission shall contain details of:

a) the categories of mineral and wastes; and
b) the quantity of each such category in tonnes.

Reason: To allow monitoring of mineral extraction progress and waste recyclates to assist the Mineral and Waste Planning Authority in the forward planning of mineral and waste resources.

46. Annual Environmental Report

An Annual Environmental Report shall be submitted to the Mineral and Waste Planning Authority by 31 March each year for the preceding period from 1 January to 31 December. The report shall contain the following:

a) a statement of operations over the past year, to include progress on mineral extraction, waste deposit and processing, and restoration; and a summary of monitoring of noise, dust and HGV movements;
b) identification of any problems caused by the operations and action taken to address these;
c) a statement of future planned operations for the next year; and
d) identification of any potential problems which could be caused by future operations and action to be taken to address these.

Reason: To facilitate ongoing monitoring and assessment of the environmental impact of operations and to assist the Mineral and Waste Planning Authority in the forward planning of mineral and waste resources.

Informatives

The Environment Agency has advised that it expects that all monitoring baseline data submitted should be collected for a least a year before related changes in relation to dewatering are begun to allow for confidence in the data and seasonal variation.

Natural England has advised that if further groundwater monitoring and assessment demonstrates that the proposal will affect groundwater levels in the Cam Washes SSSI or input of groundwater into Upware north pit SSSI, options for mitigation should include consideration of the following, as agreed with the applicant:

a) Continuation of pumped discharge to Cam washes SSSI including, where required, appropriate water control infrastructure, to ensure that any loss of groundwater is effectively mitigated by appropriate distribution of replacement pumped water. Natural England wishes to advise how best to maximise benefits from this and considers that such provision of pumped water should not prejudice the quantity of pumped water currently received by other parts of the Kingfisher Bridge County Wildlife Site
b) Further enhancements within Cam Washes SSSI to complement work already supported by Natural England to improve habitat water-retention capacities particularly during the critical spring / early summer period.
   - Pumped discharge to Upware north pit SSSI to ensure that any loss of groundwater is effectively mitigated by appropriate replacement with water pumped from the quarry. Such provision of pumped water should not prejudice the quantity of pumped water currently received by other parts of the Kingfisher Bridge County Wildlife Site nor quantity of water currently received by Cam Washes.

Internal Drainage Boards/Middle Level Commissioners: - the applicant is reminded that they have a separate legal obligation to the Internal Drainage Boards and Middle Level Commissioners in the area. Granting or refusal of consent under the Internal Drainage Board's byelaws or the Land Drainage Act 1991 is a matter for the Board itself and will require a formal application and prior written consent from the Board or Commissioners. The applicant is advised to contact Middle Level Commissioners at their earliest opportunity to establish their requirements.

Agenda Item No: 3

LAND AT: NATIONWIDE RECYCLING LTD, BARNWELL JUNCTION, SWANN ROAD, CAMBRIDGE, CB5 8JZ

FOR: ERECTION OF 48 METRE LENGTH OF 5 METRE HIGH FENCE AND 42 METRE LENGTH OF 5.1 METRE HIGH STACKED SHIPPING CONTAINERS TO PROVIDE NOISE ATTENUATION AND VISUAL SCREENING (RETROSPECTIVE)

LPA REF: C/5010/10/CW

To:	**Planning Committee**
Date:	**21 July 2016**
From:	**Head of Growth and Economy**
Electoral division:	**Abbey**
Purpose:	**To consider the above planning application**
Recommendation:	**It is recommended that planning permission is GRANTED**

Officer Contact:

Name: Helen Wass
Post: Development Management Officer
Email: Helen.Wass@cambridgeshire.gov.uk
Tel: 01223 715522

1.0 THE SITE AND SURROUNDINGS

1.1 The application site is formed of two separate areas, which include the fence and the area on which the containers are sited only. This has an area of 118m^2. The development is situated on an existing scrapyard, which comprises two yards that are divided by an access road and cover in total an area of approximately 0.4 hectares. The northern yard is used for handling non-ferrous metals. There is a 14 metres x 8 metres recycling building, small weighing shed, a small welfare building, but the majority of the operation including the storage of sorted metals is carried out in the open air within and outside skips. The southern yard is used for handling ferrous metal and has a weighbridge and a steel container used as a weighbridge office. The metal is handled and stored in the open within and outside skips.

1.2 The land lies at the southeastern edge of Mercers Row Industrial Estate which is located off Newmarket Road, near the Barnwell railway bridge. The main vehicular entrance is from Swann Road alongside the John Banks car showroom. This is also the means of access to an area of former goods yards to the north and to a car hire business, which occupies land to both the north and south of the scrapyard. On the land to the south of the scrapyard is the office, canopy, private car washing facility and some parking spaces. The land immediately to the north of the scrapyard is used for parking staff and hire fleet vehicles, which are secured behind a 2.1m high palisade fence. The rest of the former goods yards to the north of the scrap yard and hire car park is used as a self-storage yard with containers for which retrospective planning permission was granted by Cambridge City Council on 27 January 2015 (ref no 14/1549/FUL. The City Council is currently considering a partly retrospective application (ref no 16/0483/FUL) to increase the number of storage containers. Adjoining the northwest corner of the scrapyard and also the northwestern boundary of the hire car parking and self-storage yard are premises used by SCA Recycling which is accessed off Mercers Row.

1.2 The eastern boundary of the site runs alongside the railway line. On the other side of the railway line to the east is an embankment, which is approximately 3 metres in height, and supports undergrowth characteristic of railway verges as well as established deciduous and conifer trees. These provide a visual screen along some sections. Immediately to the east and adjoining the redundant branch line to the main railway line are two residential properties, Station House and Station Lodge. Station House is the former Barnwell Junction station and has a modern conservatory extension. It is situated to the northeast of the northern (non-ferrous) part of the scrap yard, directly opposite the self-storage area. Station Lodge is a 3-storey house built in the early 1990s that has been subsequently extended. It is situated directly opposite the northern part of the scrapyard which is bordered by the 5.0 metres high wood panel fence, and is one of the structures which is the subject of this planning application.

1.3 Barnwell Junction Pastures, a green open space and City Wildlife Site, separates Station House and Station Lodge from the businesses and houses on Ditton Walk to the east. Within it stands the Chapel of St Mary Magdalene and Stourbridge Chapel which is a Grade I listed building.

2.0 THE BACKGROUND AND THE DEVELOPMENT

2.1 <u>Noise Complaint History</u>
There is a history of complaints about noise emanating from the scrapyard. Monitoring undertaken at Barnwell Junction in 2009 recorded noise at a level above that at which complaints are likely. There have been a series of legal civil actions taken by residents.

On 30 July 2009 an interim injunction was applied for by local residents to restrain the alleged noise nuisance from the recycling activities. The site owners and operators agreed to restrict operational hours to 0800 to 1630 Monday to Friday and to use the crane grab for no more than 2 hours in a day (cumulative). The development which is the subject of this planning application sought to address the findings of the judgement (case reference HQ09X03460 dated 22 June 2010).

2.2 The Development

It is proposed to retain a 48 metres length of 5 metres high timber fencing and also a line of stacked shipping containers 42 metres in length and 5.1 metres high (the barriers). Both were substantially complete before the end of March 2010. They provide noise attenuation and visual screening. Two sections of the shipping containers are open where they face the yard and are used to store recovered items such as batteries, component parts of vehicles and gas cylinders. The containers range along the eastern boundary of the southern scrapyard and are stacked two high. They are mostly painted dark green and have been subject to graffiti where they face the railway line. They are on a metal plinth and metal plates have been used to attach the containers to each other.

2.3 The fence comprises galvanised steel universal beam section posts, which are set 3 metres apart in concrete foundations. These are in-filled with 5 metres high stress graded softwood infill panels, light brown in colour. The fence extends along the northern (14 metres) and eastern boundaries (35 metres) of the northern yard.

2.4 The proposal does not alter the processes or volume of metal that is sorted on site for recycling. The barriers were in place before the application was submitted therefore the application is retrospective.

3.0 PLANNING HISTORY

3.1

C/78/0850	Use of land as builders and demolition contractors' yard – granted 20-12-1978
C/80/0482	Erection of temporary storage buildings – granted 13-06-1980
C/81/0033	Use of land for storing of scrap metal, waste skips and heavy goods vehicles, shearing and baling of scrap metal – granted 17-03-1981
LDC/0024/93	Certificate of Lawful Use for the use of the land for the purpose of storage, breaking and distribution of non-ferrous metals only, being a use identified in the Town and Country Planning (Use Classes) Order 1987 (as amended) as a scrap yard (sui generis use) and for no other purpose and excludes the use of the site for the storage or distribution of minerals or for the breaking of motor vehicles – granted 24-03-1994
C/95/0769/FP	Erection of a non-ferrous metal store (Class B8) – granted 27-03-1996
C/96/0789/VC	Variation of condition 02 of C/0031/81 and condition 07 of C/95/0769/FP which relate to hours of operation on, and the occupation of, the scrapyard site and associated storage buildings (sui generis) – refused 31-10-1996

3.2 The certificate of lawful use (CLU) recognises the use of the northern yard as lawful as a result of the evidence submitted to Cambridge City Council which showed that, for a period of ten years prior to the date of the application, the site was used for the purpose as a scrap

yard for the storage, breaking and distribution of non-ferrous metals and materials. The fence is along the northeast and southeast boundaries of the northern yard. The southern yard has planning permission for use of land for storing of scrap metal, waste skips and heavy goods vehicles, shearing and baling of scrap metal (C/81/0033). The containers have been placed along the southeast boundary of the southern yard. The planning permission is for a permanent use and there are no conditions relating to noise. Condition 3 of C/81/0033 limits scrap materials or any other goods stored, stacked or deposited in the open to a maximum height of 4 metres.

4.0 PROCEDURAL AND LEGAL MATTERS

4.1 A report was published prior to this application being withdrawn from the agenda of the County Council's Development Control Committee on 10 March 2011 because of the an intention to make a legal challenge. A challenge was subsequently made upon grounds that the application should be subject to environmental impact assessment (EIA) because of the impact of noise on residential amenity and that the site should have been assessed in combination with the adjacent car sales (now car hire) business.

4.2 Officers were of the opinion that the scrapyard operation as changed by the erection of the fence and placement of the containers was not Schedule 2 development as set out in the EIA Regulations because it failed to meet the minimum size threshold for consideration (0.5 hectare). Consequently the proposal did not need to be screened to assess whether or not it would be likely to have significant environmental effects and therefore was not considered by officers to be EIA development.

4.3 On 2 June 2011, the objectors sought a screening direction from the Secretary of State (SoS), which was issued on 22 September 2011. It concluded that EIA was not required. It was intended that the application be determined by the Development Control Committee in November 2011. However, it was not included on the agenda because the objectors disagreed with the SoS's decision, which the SoS declined to review. In December 2011 the objectors applied to the High Court for judicial review of the SoS's decision, asking that the screening direction be quashed. The proceedings were stayed pending the outcome of a separate case then before the Court of Appeal which was dealing with similar principles and points of law. A Consent Order, finalised on 13 January 2014, indicated that the SoS accepted the need to re-determine the screening direction. The direction of 22 September 2011 was quashed.

4.4 On 19 November 2014 the SoS issued a second screening direction. This also concluded that an EIA was not required and was also subject to a legal challenge by the objectors. On 13 January 2015 the SoS cancelled the November 2014 screening direction "on a precautionary basis", in the light of additional information being brought forward about. In October 2014 a retrospective application (ref no 14/1549/FUL) had been made to Cambridge City Council for the use of land to the north of the scrap yard as a self-storage yard and this had not been taken into account by the SoS.

4.5 On 18 December 2015 the SoS issued a third screening direction having taken into account the information which had come to light since a direction had been first issued. He noted that the adjacent land that was being used as a self-storage yard may be associated with the scrap yard and may in turn increase the size of the scrap yard to more than 0.5 hectare. This would take it above the threshold to constitute Schedule 2 development and upon this basis it would need to be screened. Schedule 2 development becomes EIA development if it is likely to have significant effects on the environment. The SoS was not persuaded that the noise impacts of the scrapyard on the two nearby houses meant that there were

significant effects on the environment within the meaning of the EIA regime. He took into account the potential for cumulative impacts with the adjacent car hire and self-storage developments.

4.6 The SoS commented that the EIA Regulations are in place to protect the environment in the public interest, not to protect the amenity of individual dwelling houses. There may be an impact on a particular dwelling or dwellings without there being any likely "significant effect on the environment" for the purposes of the Regulations. The SoS concluded that for the reasons summarised above the development is not EIA development.

4.7 The SoS commented on the purpose of the EIA regime: "it is not the intention of the EIA regime to apply the fairly elaborate environmental assessment regime to each and every planning application however minor. The regime must be applied with a degree of common sense, recognising that the EIA regime is intended to apply only to a limited number of projects; namely those projects of which it can sensibly be said that they may have a significant effect on the environment."

4.8 Given the limited number of sensitive receptors the SoS was not persuaded that the magnitude of impact is such to suggest that significant environmental effects have occurred or are likely to occur. Surveys undertaken since the barriers were put in place show that noise levels have not reduced below that which complaints are likely. A survey carried out in July 2013 suggests that levels are similar to those recorded before the barriers were put in place. However, there is also no evidence that the change to the scrapyard caused by the barriers has resulted in increased levels of noise. Overall, while noise levels at the site continue to have an adverse impact on some noise sensitive receptors, the modification to the scrapyard does not appear to have changed the noise landscape to the extent that significant environmental effects, either positive or adverse, have resulted or are likely to result.

4.9 Turning to the cumulative impacts of the development with other activities in the area, the SoS notes that the changes to the car hire business on adjacent land have the potential to extend the noise and nuisance in the area. However, in the light of the limited number of sensitive receptors affected by these changes, he does not consider that the impacts of this development are likely to be significant. When considering the cumulative impacts of this and the scrapyard development the SoS is of the view that no new significant impacts have occurred or are likely to occur, including indirect effects.

5.0 PUBLICITY

5.1 The application was advertised in accordance with the Town and Country Planning (Development Management Procedure) (England) Order 2010. The following neighbouring properties were notified:

Station Lodge, Barnwell Junction, Newmarket Road, Cambridge CB5 8JJ
Station House, Barnwell Junction, Newmarket Road, Cambridge CB5 8JJ

5.2 In April 2016 consultees and the occupiers of the two neighbouring properties (the objectors) were given the opportunity to make additional comments.

6.0 CONSULTATIONS

6.1 Cambridge City Council – no objection to the proposal for the following reasons:

The site is allocated in the Proposals Map (2006) as a Protected Industrial Site. As the application does not propose a change of use, it is considered to be compliant with Cambridge Local Plan policy 7/3. Given that the site is not within a Conservation Area and that the characteristic of the site is of an industrial nature bounded by the railway running along the eastern boundary, it is not considered that the appearance of the proposal to retain the retrospective fences would be in conflict with policies 3/4 or 3/7 of the Cambridge Local Plan (2006).

[April 2016: no objections]

6.2 Cambridge City Council – Environmental Health Officer – supports the application.

Barrier Construction - To be effective a noise barrier needs to have a surface density of at least 12kg/m2, which both the fence and containers will have. It also must be free from holes as even small gaps will allow a significant amount of sound to breakout. This is not an issue for the fence but there is a hole in the container barrier around the ferrous yard, which is to allow access for a drain. A barrier that prevents line of sight between the noise source and receiver will give a 10dB reduction. This figure is roughly confirmed by the applicant's statement. This reduction is perceived as a halving of the volume of the noise. The barrier having sufficient height achieves this. The barriers prevent any direct view to Station House. It is noted that the current barriers, especially the containers around the ferrous yard, do not exclude a line of sight to the top floor of Station Lodge, a building that postdates the yards. It may not be feasible to build barriers that will adequately address overlooking from the top storey of Station Lodge which is three storeys in height.

6.3 *Noise Reduction* - On site measurements by the Environmental Health Officer have not been taken, but based on the size, location and construction, he is of the opinion that the barriers are having a positive effect on reducing the noise from the site. The Environmental Health Officer has highlighted comments made by His Honour Judge Simpkiss (Paragraphs 130 & 131, Thornhill & Ors v Nationwide Metal Recycling & Ano [2010] EWHC 1405 (QB),

"This is not a plain case of nuisance but taking all the above matters into account I find that between those dates [NMR taking over the site and erecting the barriers] there was a nuisance. I also find that since the barriers have gone up, and providing that use of the crane is regulated to the extent that it has been recently then there is no nuisance."

6.4 The site has an environmental permit, formerly a waste management licence, issued and enforced by the Environment Agency, the conditions of which are intended to ensure the Best Available Techniques (BAT) are used. These include conditions to control noise, dust and smoke. It is a defence against enforcement action under the permit that the site operator is employing BAT. The site is also potentially subject to statutory nuisance action by Cambridge City Environmental Health which is under a duty to investigate any complaints of nuisance. As the site has an environmental permit any enforcement action would first require the permission of the Secretary of State. None of Cambridge City Council Environmental Health, nor Cambridgeshire County Council or the Environment Agency received any complaints about the site in the three years up to 2011. The Environmental Health Officer advises the objectors to ask the Environment Agency to update the environmental permit with the measures detailed in the court case judgement which would enable the Environment Agency to use its powers of enforcement should they be required.

6.5 [May 2016]: The following information which dates from after the previous comments were made has been reviewed:

1. A noise report by Hilson Moran dated 7 July 2011 [commissioned by the objectors]

2. A noise report by MAS dated 12 Aug 2013 [commissioned by the objectors]
3. Email from local residents objecting to the development

6.6 The email from the local residents refers to a car hire business and a storage yard now operating in the area. Both of these sites have been subject their own planning applications, consultations and permissions. The application for the expansion of the storage yard is currently awaiting decision.

6.7 There is no record of complaints about noise from the site being received by the Environmental Health team since our previous comments in 2011, when it is understood that the barriers were in place.

6.8 Planning policy and guidance has undergone significant change since our previous comments with the introduction of the National Planning Policy Framework in 2012 (NPPF), NPPF Planning Practice Guidance - Noise, a Noise Policy Statement for England and the repeal of PPG 24 – Planning and Noise. However, the new policy and guidance do retain the same principles and also continue to identify the use of noise barriers as a recognised noise control method to mitigate the adverse effects / impacts of noise.

6.9 Having taken all the above information into consideration the conclusions reached in the 2011 advice still stand in this case and our recommendation is for this application to be approved with the additional wording along the lines of "The approved development shall be retained thereafter" as there is a need to ensure that the barrier proposals are retained as detailed.

6.10 Environment Agency - no objection in principle to the proposal. The application meets with the conditions of the environmental permit for the site which requires a screening fence of 'at least 2.5 metres high' – the fence in the application is 5m high. The site permit does not have any specific conditions relating to noise.

6.11 [May 2016]: No further comment to add to the earlier response.

6.12 Cambridgeshire County Council – Ecology Officer – no comments to make.

6.13 Network Rail - asks the developer to confirm the clearance to the fence line. The contractor needs to be aware of the 3 metres exclusion zone to the nearest part of the Overhead Line Equipment for any work or equipment to be located. Any scaffold, cranes or other mechanical plant must be constructed and operated in a "fail safe" manner that in the event of mishandling, collapse or failure, no materials or plant are capable of falling within 3.0m of the nearest rail of the adjacent railway line, or where the railway is electrified, within 3.0m of overhead electrical equipment or supports. To avoid scaffold falling onto operational lines, netting around the scaffold may be required. In view of the close proximity of these proposed works to the railway boundary the developer should contact Network Rail's Outside Parties Engineer before any works begin.

[May 2016: No further comments.]

7.0 INDIVIDUAL REPRESENTATIONS

7.1 Objections and comments dated (13/01/2011) set out by an agent acting upon behalf of representors are summarised below:

- The barriers have little effect in reducing the impact of the noise from the scrapyard so are not fit for purpose. Granting permission would add to the misconception that they have resolved a serious noise nuisance when they have not.
- A scrapyard does not fall within the uses designated in the local plan [Protected Industrial Site]. The barriers are adjacent to land in residential use and to land designated as a wildlife site and as Cambridge Green Belt. They are close to open land which has Grade I and Grade II listed buildings nearby.
- The scrapyard makes little contribution to sustainable development. Recycling is part of the waste hierarchy but it is unlikely that without the scrapyard the metal would be diverted to landfill.
- Cambridge City Council has not taken appropriate enforcement action to address the adverse impact of the scrapyard on local residents.
- Cambridgeshire County Council does not appear to have considered its obligations under the EIA Directive 85/337/EEC.
- Factual errors and omissions in the correspondence between the applicant's noise consultant and the environmental health officer.

7.2 Additional comments (May 2016):

Since the barriers were erected the area has seen several material changes such as
• A busy car hire business & car storage compound and a storage yard have been set up, the vehicles passing outside the fence. The storage business has applied to increase in size and extend operating hours.
• Trees that used to afford some screening of the barriers has been permanently removed.
• The barriers have deteriorated over the time, including through vandalism and show no signs of any maintenance whatsoever. The fence has posts that are different colours and is viewed directly from patio doors/windows.
• Lighting has been added to the fence which is disturbing during the hours of darkness and the white conduit is prominent during daylight hours.
• The fence is described by the applicants as reflective meaning that the disturbance caused by the traffic passing between them and our residences is amplified together with the extended hours and greatly increased use by the new businesses.
• The gap between the barriers and the lack of alignment has the effect of funnelling the sound towards our properties.
• The industrial area in the vicinity has been partially replaced by residential properties.

7.3 Copies of the individual representations will be placed in the Members' Lounge one week before the date of the meeting.

8.0 PLANNING POLICY AND RELEVANT GUIDANCE

8.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 and section 70(2) of the Town and Country Planning Act 1990 require that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The relevant development plan policies are set out in paragraphs 8.3 and 8.4 below.

8.2 The National Planning Policy Framework (March 2012), the Waste Management Plan for England (December 2013) and National Planning Policy for Waste (October 2014) are also material planning considerations.

8.3 Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (adopted July 2011) (the M&W Core Strategy)

CS34 Protecting Surrounding Uses
CS41 Ancillary Development

8.4 Cambridge Local Plan (adopted July 2006)

4/13 Pollution and Amenity
7/3 Protection of Industrial and Storage Space

8.5 Cambridge Local Plan 2014: Proposed Submission (July 2013) Is still at the examination stage with hearings scheduled to take place from June until September 2016. Little weight can therefore be attached to the draft policies.

9.0 PLANNING CONSIDERATIONS

9.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies and how these are expected to be applied. It is a material consideration in planning decisions and at its heart is a presumption in favour of sustainable development. It states that:

- Proposed development that accords with the development plan should be approved without delay;
- Where the development plan is absent, silent or relevant policies are out-of-date, permission should be granted unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or specific policies in the NPPF indicate development should be restricted; and
- Proposed development that conflicts with an up-to-date development plan should be refused unless other material considerations indicate otherwise.

9.2 The Government identifies three dimensions to sustainable development which give rise to need for the planning system to perform a number of roles which it states should not be undertaken in isolation:

- an economic role: contributing to building a strong, responsive and competitive economy, ……. including the provision of infrastructure;
- a social role: supporting strong, vibrant and healthy communities, …… by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- an environmental role: contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

9.3 The National Planning Policy for Waste (NPPW) refers to the Waste Management Plan for England (WMPE) and promotes driving waste management up the waste hierarchy

9.4 The NPPW provides guidance on the determination of waste planning applications. Local Authorities should:

- consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B of the document and the locational implications of any advice on health from the relevant health bodies**.**

- ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located;

- concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced;

9.5 The barriers are ancillary to the operation of the scrapyard which is a waste management facility. Policy CS41 is therefore the starting point for evaluation and says that:

Proposals for ancillary development associated with waste management facilities or mineral site will be considered against policies and criteria contained elsewhere in the development plan. If permission is granted a condition will be attached limiting the life of the ancillary development to the life of existing operations.

Permanent or extended retention of ancillary facilities may be permitted where it is demonstrated that this:
a. Is required for health and safety/pollution control
b. It is not detrimental to surrounding uses
c. Is not contrary to policies contained elsewhere in the development plan

The other relevant plan policies are Core Strategy CS34 and Local Plan 4/13. The former aims to protect surrounding uses and states:

Mineral and waste management development will only be permitted where it can be demonstrated that there would be no significant harm to the environment, human health or safety, existing or proposed neighbouring land uses, visual intrusion or loss to residential or other amenities.

Cambridge Local Plan policy 4/13 states:

Development will only be permitted which:
a. Does not lead to significant adverse effects on health, the environment and amenity from pollution; or
b. Which can minimise any significant adverse effects through the use of appropriate reduction or mitigation measures.

9.6 The principle of the operation of the scrapyard is established and the current application seeks permission to retain the two barriers only. It is intended that they provide acoustic and visual screening to the site and storage for recovered components. It is the impact of the barriers themselves that needs to be considered.

<u>Visual Impact</u>

9.7 One of the purposes of the barriers is to provide a visual screen. The barriers can be seen from the eastern side of the railway line above the pre-existing railway boundary fence, most noticeably where this is relatively low chain link. In some places the railway fence is approximately 3 metres high and of solid construction. The scrapyard and railway line are lower than the adjoining businesses such as the John Banks car showroom. The new barriers are seen against a backdrop of the large industrial buildings to the northwest of the scrapyard. The timber fence and shipping containers are compatible with the industrial nature of the site. Without them in place the scrapyard would be more visible; the chain link railway fence would not have offered any visual screening for local residents. When viewed

from the opposite embankment, the higher, solid barriers effectively screen most of the activities in the two yards, apart from when the crane grab is in operation and protrudes above the height of the fencing.

9.8 The fence is as described in paragraph 2.2. The objectors' observations are that it has posts of different colours. This seems to be a reference to one light coloured post at the northern end facing the railway and houses. The others on the same façade are rust coloured. This is not considered to significantly affect the appearance of the fence. The containers are predominantly green in colour. It is acknowledged that they have, like the lower, solid railway fence in front of them, been vandalised by the addition of some graffiti (the normal control of which is outside the scope of the planning system) and that the containers and fencing are exposed to the elements.

9.9 For the reasons set out in paragraphs 9.7 and 9.8 the barriers are not particularly noticeable or intrusive, or out of character with the general area. They do not therefore conflict with development plan policies CS41 and CS34.

Lights

9.10 The objectors have reported being disturbed by lighting that has been added to the fence. The northern yard has lights mounted on the fence which runs along the north east and south east boundary (and which is the subject of this application). The lights are below the level of the top of the fence and are angled into the yard so light-spill outside the yard is unlikely. There is an approximately 5 metres high lighting column on the north west boundary of the southern yard, close the weighbridge office. It is mounted with two luminaires, one angled to the south (i.e. towards Newmarket Road) over the stockpile of metal and the other to the north west over the site access. Station Lodge is approximately 65 metres to the north east and whilst these lights may be visible they are not orientated directly towards the house so unlikely to cause a statutory nuisance.

Noise Impact

9.11 The most recent noise surveys (carried out in July 2013 for the objectors) suggest that levels are similar to those recorded before the barriers were put in place. The report (MAS Environmental dated 12 August 2013) concludes by saying that:

> *"As there has been little or no reduction on noise impact at the affected residences, and no significant reduction in background noise, it is considered that mitigation has had a minimal beneficial effect or that source noise levels at the site have increased."*

This is not dissimilar to MAS Environmental's conclusion following monitoring undertaken in September and October 2010 which was that:

> *"The barriers have provided minimal improvement in noise levels, and far less than predicted."*

MAS Environmental acknowledges that the barriers have had a small positive effect in reducing noise from the scrapyard experienced at Station House and Station Lodge.

9.12 In his judgement in the High Court of June 2010 His Honour Justice Simpkiss concluded that the barriers had made a sufficient difference to bring the noise below the threshold of nuisance. As noted by the SoS (see paragraph 4.8 above), there is no evidence that the change to the scrapyard caused by the barriers has resulted in increased levels of noise. The objectors refer to the barriers reflecting the noise from vehicles accessing the self-

storage facility. This is a matter that will be for consideration by Cambridge City Council when they consider the application to expand that business. The barriers do not conflict with development plan policies CS41, CS34 and 4/13.

9.13 The NPPW requires planning authorities to consider the likely impacts on the environment and on amenity against locational criteria which include those relating to noise, light and vibration. Appendix B paragraph j states that:

Considerations will include the proximity of sensitive receptors. The operation of large waste management facilities in particular can produce noise affecting both the inside and outside of buildings, including noise and vibration from goods vehicle traffic movements to and from a site. Intermittent and sustained operating noise may be a problem if not properly managed particularly if night-time working is involved. Potential light pollution aspects will also need to be considered.

9.14 The effect of the development on sensitive receptors, in this case two nearby households, is considered to be neutral in terms of noise. Lighting has been discussed in paragraph 9.10 above.

9.15 The environmental health officer has recommended that if planning permission is granted, a condition should be imposed requiring the barriers to be retained. The barriers were erected at a time when the scrapyard was considered by local residents to generate a level of noise which was a nuisance. The High Court found that without the barriers the activities at the scrapyard undertaken by Nationwide Metal Recycling (who took over the site in April 2009) only just crossed the threshold of nuisance and that the barriers had made sufficient difference to bring it below the threshold provided the use of the scrapyard is restricted to the hours set out in the waste management licence (Monday to Friday 0800 to– 1630 hours), and the crane is not used for more than 10 hours a week. The High Court awarded an injunction restricting the use of the crane.

9.13 No noise-generating activity forms part of the application and the barriers were put in place in response to the nuisance case, not as part of a planning permission for any of the waste management development that takes place at the scrapyard. It would be difficult to justify imposing a condition to retain the barriers when consideration of the scrapyard use itself does not fall within the terms of this application. If the barriers were to be removed the operations at the scrapyard may again reach the level of nuisance but that is not a matter for the waste planning authority and would fall to be considered under separate environmental health legislation relating to nuisance. The methods of operation may change in future. For example, the scrap yard may be able to operate without the crane and in such a way that without the barriers it does not cross the threshold of nuisance. It is considered that the operators should have the option of operating in such a way if the nature of their metal recycling business changes. Additionally, should circumstances change visual considerations would also need to be taken into account within the circumstances at the time when considering future alterations or changes. For this reason it is not considered appropriate to recommend that any condition be imposed to require the barriers to be retained.

10.0 CONCLUSION

10.1 On the evidence available the barriers have made a small difference to the local noise environment and their limited visual impact is not inappropriate alongside a railway line close to an established industrial area. On balance, it is considered that the proposal to retain the barriers is acceptable without any recommended conditions, for the above mentioned reasons. The development is considered to be compliant with the relevant

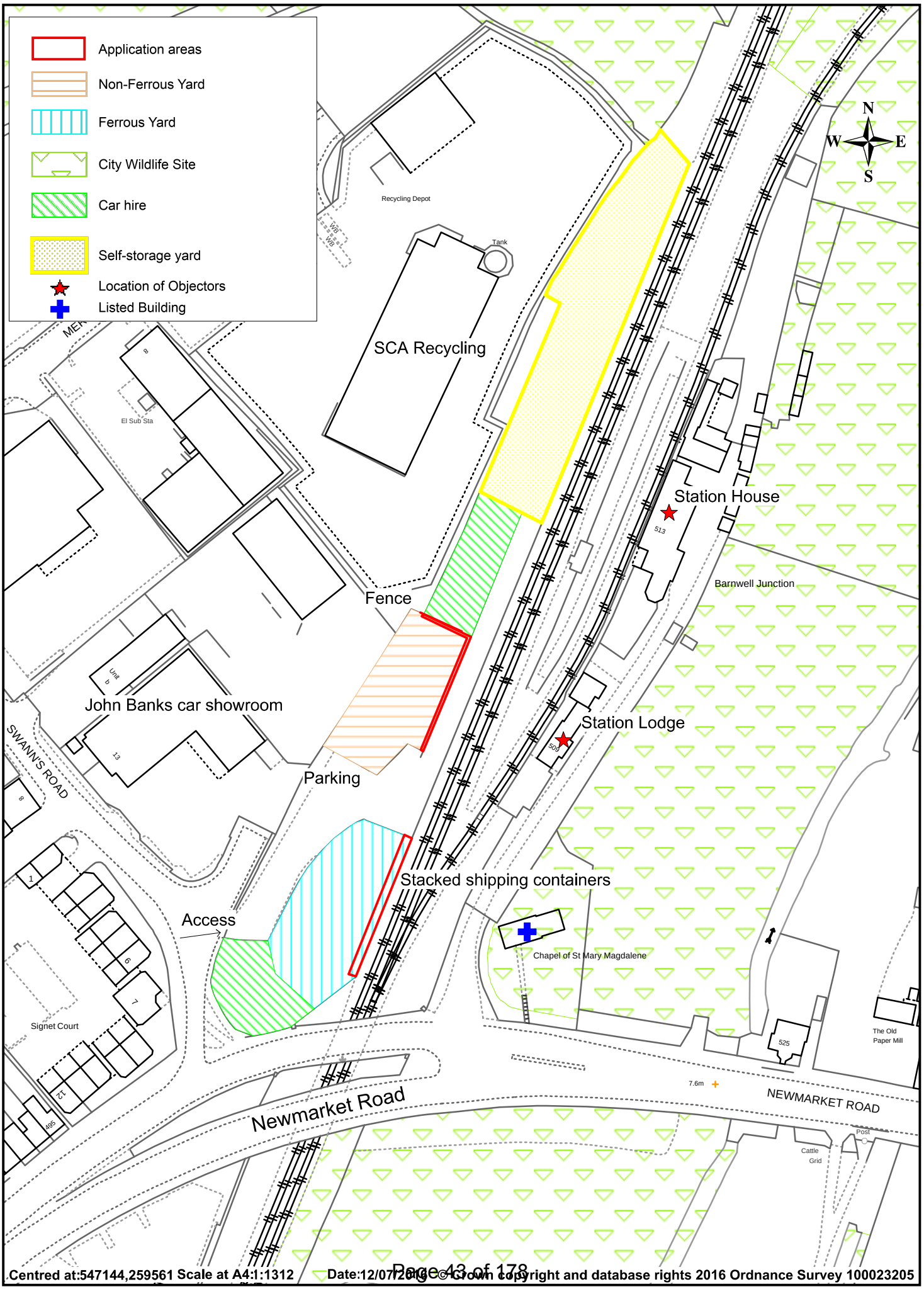
development plan policies as set out in the previous section of this report. The development does not conflict with national planning policies so there is no reason why permission should not be granted.

11.0 RECOMMENDATION

11.1 It is recommended that planning permission be GRANTED.

Source Documents	Location
Link to the National Planning Policy Framework: http://planningguidance.communities.gov.uk/blog/policy/ Link to the Waste Management Plan for England: https://www.gov.uk/government/publications/waste-management-plan-for-england Link to the National Planning Policy for Waste: https://www.gov.uk/government/publications/national-planning-policy-for-waste Link to Cambridgeshire and Peterborough Minerals and Waste Core Strategy: http://www.cambridgeshire.gov.uk/info/20099/planning_and_development/49/water_minerals_and_waste/7 Link to Cambridge Local Plan 2006: https://www.cambridge.gov.uk/content/local-plan-2006	

C/05010/10/CW



Demolition of existing buildings and 3no 14 metre high chimneys; erection of a pyrolysis plant building connected to a waste reception building; erection of a 25 metre high chimney; 2no containers for gas engines; electricity substation; upgrading and extension of internal access track around perimeter of the memorial garden

AT: **Novus Environmental, Novus House, Thriplow, SG8 7RR**

APPLICANT: **Paul Bourchier, Vetspeed**

LPA NO: **S/0008/15/CW**

To: **Planning Committee**

Date: **21 July 2016**

From: **Head of Growth & Economy**

Electoral division(s): **Duxford**

Purpose: **To consider the above planning application**

Recommendation: **That planning permission is granted subject to the conditions set out in paragraph 4.1**

Officer contact:		***Member contact***
Name:	Helen Wass	Name:
Post:	Development Management Officer	Portfolio
Email:	Helen.Wass@cambridgeshire.gov.uk	Email:
Tel:	01223 715522	Tel:

1.0 INTRODUCTION

1.1 This application was discussed by the Planning Committee at the meeting on 12 May 2016. A copy of the May report and its appendices are Appendix A, A1, A2, A3, A3a and B of this report. At the May meeting Members resolved to defer making a decision on this application for three months for:

i. IWM Duxford to carry out a technical air safety report;
ii. the applicant to discuss the height of the chimney with the Environment Agency; and
iii. further discussions to take place between the applicant and IWM Duxford.

1.2 It was noted following the close of the meeting that this would mean that the application would be reported to the September meeting. However, this was dependent on the applicants agreeing to an extension of time for determination until after 1 September 2016. The applicants were only willing in the first instance to agree to an extension of time until 29 July 2016 until they had seen the additional information put forward by IWM Duxford. In order to meet the July Planning Committee agenda deadlines IWM Duxford were asked to provide their report by 5 July 2016 which they did. A copy of the report is included as Appendix C and a summary of its conclusions are set out at paragraph 2.1 below.

1.3 Having considered the IWM Duxford report, the applicants were not willing to agree to the extension of time which would allow the application to be determined at the September Planning Committee. In their opinion the non-technical nature of the report and the lack of technical evidence supporting its claims does not add anything new. They therefore wished their application to be determined at the July Planning Committee.

1.4 The applicant approached the Environment Agency about the height of the chimney in mid-June. Their correspondence is included as Appendix D.

1.5 A meeting took place on 29 June between the applicant's agent and representatives of IWM Duxford which was attended by the planning officer. IWM Duxford explained that they were finalising their technical report. The applicant explained that the Environment Agency requires planning permission to be in place before they will assess the chimney as part of the environmental permit application process.

2.0 THE IWM DUXFORD TECHNICAL REPORT

2.1 This is a summary of the report's conclusions:

The erection of a 25 metre (82.9 foot) chimney would be new, significant and a hazard:

(1) Although attached to an existing site and expanding operation, it would be new. It is not a like for like replacement. It is understood to be a brand new chimney and at 25 metres (82.9 feet) it is 60% (10 metres / 33.2 feet) higher than the existing chimneys.
(2) It would be significantly higher than any other obstacle in the immediate vicinity therefore would be 'noteworthy'. With reference to ASA Ltd's [March 2016] report it would need to be flagged as an obstacle to aircraft coming into or out of Duxford Aerodrome; it would also need to be notified to the Royal Air Force Aerobatic Team (Red Arrows) as per Military Aviation Authority requirements to highlight any obstruction in excess of 50 feet above Aerodrome Level (the current chimney is slightly under this at 49 feet 2.5 inches / 15 metres).
(3) Any upstanding protrusion or obstacle whether temporary or permanent, in a potential flight/take-off/landing path and so close to an aerodrome is self-evidently a hazard, a 'potential source of danger'. If an aircraft were to fly into or clip the proposed chimney it could, and would in all probability, lead to a serious and possibly fatal incident. This could include fatal or life-changing injuries not only to the pilot/crew/passengers of the aircraft but also those working or visiting the Vetspeed/Novus Environmental complex, and possibly traffic/users of the A505 immediately next to the site.

2.2 IWM Duxford believes that because of the case set out in their report that:

"*the proposed new chimney stack would represent **a significant hazard** (to quote the terminology of Mineral and Waste Core Strategy Policy CS40).*

This would therefore put flight safety at risk, and therefore in all probability the long-term continuation of Duxford Aerodrome as an operational airfield after nearly 100 years of historic service; the success of IWM Duxford as Cambridgeshire's premiere visitor attractions, which is of national and international historical importance; our educational programmes including our practical STEM focus; on-site partner businesses focused on the restoration and maintenance of historic and vintage aircraft, pilot training and pleasure flights and the continuation of air-shows – all of which directly support over 300,000 visitors, and 250 jobs.

2.3 The report was sent to Alan Stratford and Associates Ltd (ASA) [the consultants engaged by the County Council to provide independent advice] to review, and to the applicant. ASA's comments are included as Appendix E and the applicant's as Appendix F. Their conclusions are summarised below.

<u>Alan Stratford and Associates Ltd</u>

2.4 Conclude that the IWM Duxford report does not in any way alter the findings and conclusions of their March 2016 report. All aviation activities have some element of risk and all those participating in these as pilots or passengers tacitly accept this. The issue is whether this risk is acceptable. IWM Duxford has substantially overemphasized the safety risks in respect of the proposed chimney, its associated smoke

plume and pyrolysis plant and that all the risk likelihoods are extremely improbable.

2.5 Whilst all the factors described do have some very slight impact on overall aircraft safety, the risk of any collision with the chimney or in the area of the plant itself must be assessed as improbable or highly improbable under CAA definitions and should therefore be deemed as acceptable in operational terms. As a result, it is not believed that the plant and the chimney represent a 'significant safety risk'.

Biomass Power Projects Ltd (with technical input from Specialist Airport Services Ltd and Vetspeed Ltd)

2.6 The IWM have not produced a technical report that can be checked or independently verified. The scant technical information that has been supplied with the report actually helps show that historic aircraft do fly above the OLS and if engine failure were to occur they would likely hit trees or land on fields long before reaching the Vetspeed site.

2.7 Pilots taking off in aircraft that cannot climb if an engine fails are currently satisfied that the likelihood of engine failure is so low that they will clear all hazards that are close to the aerodrome, notably mature trees and the M11. The proposed new chimney is significantly less of an obstacle than the existing trees.

2.8 The IWM report focusses on historical aircraft and their ability to avoid danger during takeoff but no strict methodology has been followed to quantify the risk, the assessment has been more anecdotal than based in fact. The report claims that the introduction of the new facility will 'close us down' but nowhere is this claim substantiated.

3.0 CONCLUSION

3.1 ASA has reviewed the information provided by IWM Duxford and remains of the opinion that the proposed 25 metre high chimney will not be a significant hazard to air traffic. The applicant, with advice from an air safety consultant, has come to the same conclusion. Planning officers remain of the opinion that the proposed development is compliant with Cambridgeshire and Peterborough Minerals and Waste Core Strategy policy CS40.

3.2 No information has been brought forward which, in the opinion of planning officers, alters the conclusions of the 12 May 2016 report. The proposed development is in accordance with the development plan and with national planning policies. There are no material considerations of sufficient weight to determine the application other than in accordance with the development plan and justify refusal of planning permission.

4.0 RECOMMENDATION

4.1 It is recommended that planning permission be granted subject to the following conditions:

1. The development hereby permitted shall have begun before the expiration of three years from the date of this permission. Written notification of the date of the commencement of the development shall be sent to the Waste Planning Authority within 7 days of such commencement.

   Reason: To comply with Section 91 of the Town and Country Planning Act 1990 as amended by section 51 of the Planning and Compulsory Purchase Act 2004

2. The development hereby permitted shall not proceed except in accordance with the details set out in the submitted application and supporting documents and the following drawings, except as otherwise required by any of the conditions set out in this permission:

   - Fig 1 Rev c Location Plan dated April 2016
   - Fig 5 Rev e Proposed Site Plan dated April 2016
   - Fig 6 Proposed Building Plan dated June 2015
   - Fig 7 Proposed Roof Plan dated June 2015
   - Fig ES 1 Plant Layout (undated – received 30 June 2015)
   - Fig 8 rev b Proposed Building Elevations dated 03.16 – Colours amended
   - Fig 9 rev a Proposed Building Elevations dated December 2015
   - JEC/407/01 Rev B Planting Proposals dated April 2016
   - Specification for Soft Landscape Works dated December 2015

   Reason: To define the permission and to protect the character and appearance of the locality in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

3. External cladding shall not be attached to the fuel storage building or pyrolysis plant building until details of coloured panels have been submitted to and approved in writing by the Waste Planning Authority. The development shall not be carried out except in accordance with the approved details.

   Reason: To break up the visual form of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

4. No demolition or construction shall take place until a traffic management plan has been submitted to and approved in writing by the Waste Planning Authority. The approved plan shall be complied with in full during all demolition and construction work.

   Reason: In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

5. The area shown for HGV turning on Fig 5 Rev C Proposed Site Plan dated August 2015 shall be provided and retained and kept free from any obstruction at all times.

   Reason: In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

6. The fuel storage building and pyrolysis plant building shall not be erected until a timetable for the phased implementation of the landscaping scheme shown on drawing no JEC/407/01 Rev B *Planting Proposals* dated April 2016 has been submitted to and approved in writing by the Waste Planning Authority. The approved timetable shall be complied with in full.

   Reason: To mitigate the visual impact of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a) & (j), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

7. No removal of hedgerows or trees shall take place between 1 March and 31 August inclusive unless a competent ecologist has undertaken:

   - a detailed check of vegetation for active birds' nests immediately before vegetation is cleared; and
   - provided written confirmation to the Waste Planning Authority prior to the removal of any vegetation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site.

   Reason: (i) In the interests of the biodiversity of the site in accordance with policy CS35 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(o), DP/3(o) and NE/6 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

8. If within a period of 5 years from the date of planting any tree or shrub, that tree or shrub, or any tree or shrub planted in replacement for it, is removed, uprooted or destroyed or dies, becomes in the opinion of the Waste Planning Authority, seriously damaged or defective, another tree or shrub of the same species and size as that originally planted shall be planted in the same place, unless the Waste Planning Authority gives written consent to any variation.

Reason: To mitigate the visual impact of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a) & (j), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

9. No development shall take place until a remediation strategy that includes the following components to deal with the risks associated with contamination of the site has been submitted to and approved in writing by the Waste Planning Authority:

    1. A Preliminary Risk Assessment (PRA) including a Conceptual Site Model (CSM) of the site indicating potential sources, pathways and receptors, including those off site.
    2. The results of a site investigation based on (1) and a detailed risk assessment, including a revised CSM.
    3. Based on the risk assessment in (2) an options appraisal and remediation strategy giving full details of the remediation measures required and how they will be undertaken. The strategy shall include a plan providing details of how the remediation works shall be judged to be complete and arrangements for contingency actions.

    No occupation of any part of the permitted development shall take place until a verification report demonstrating completion of works set out in the remediation strategy required by 9. (3) above has been submitted to and approved in writing by the Waste Planning Authority.

    Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in accordance with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). Remediation measures may be needed as part of the construction phase so must be in place before development starts.

10. If, during development, contamination not previously identified is found to be present no further development shall be carried out until a remediation strategy detailing how this contamination shall be dealt with has been submitted to and approved in writing by the Waste

Planning Authority. The approved remediation strategy shall be implemented in full.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

11. No development shall commence until a scheme for surface water disposal has been submitted to and approved in writing by the Waste Planning Authority. Infiltration systems shall only be used where it can be demonstrated that they will not pose a risk to groundwater quality. The development shall not be occupied until the approved scheme has been implemented in full.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). Elements of the surface water disposal arrangements may be need to be installed in an early part of the construction phase so the scheme must be in place before development starts.

12. No development shall commence until a detailed foundation design demonstrating how the foundation solution will integrate with the on-site capping layer and a foundation works risk assessment which shall demonstrate that there is no resultant unacceptable risk to groundwater have been submitted to and approved in writing by the Waste Planning Authority. The development shall not be occupied until the approved scheme has been implemented in full.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). The foundation design will need to demonstrate that there is no resultant unacceptable risk to groundwater before development starts.

13. During the period of demolition and construction no power operated machinery shall be operated before 0800 hours on weekdays and 0800

hours on Saturdays or after 1800 hours on weekdays and after 1300 hours on Saturdays or at any time on Sundays or Bank or Public Holidays.

Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/15 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

14. No development shall commence until a programme of measures to minimise the spread of airborne dust (including the consideration of wheel washing and dust suppression provisions) from the site during the demolition and construction period has been submitted to and approved in writing by the Waste Planning Authority. The approved measures shall be implemented in full for the duration of the demolition and construction phases.

Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/16 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). This relates to the demolition and construction phases of the development so needs to be in place before development starts.

15. No external lighting shall be installed except in accordance with details that have been submitted to and approved in writing by the Waste Planning Authority.

Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/14 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

16. No part of the access track shown on Fig 5 Rev e dated April 2016 shall be constructed until details of its construction and surfacing have been submitted to and approved in writing by the Waste Planning Authority. The access track shall not be constructed except in accordance with the approved details.

Reason: To ensure that the access track is permeable and there is no increase in the impermeable area of the site in accordance with policies DP/1(i) and DP/3(p) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

17. No waste shall be stored outside the building.

Reason: To protect the visual appearance of the area in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies

DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

18. The amount of waste received for treatment by the pyrolysis plant in any one calendar year shall not exceed 30,000 tonnes excluding residual waste from the adjacent autoclave process.

Reason: The development has been assessed on this level of vehicle movements. In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

19. The Great Crested Newt watching brief set out in the AWS Ecology letter dated 21/03/2016 shall be implemented in full for the duration of the construction of the internal access road. If Great Crested Newt are found, construction work shall stop and not recommence until a mitigation strategy has been submitted to and approved in writing by the Waste Planning Authority. The development shall be carried out in accordance with the approved mitigation strategy.

Reason: (i) In the interests of the biodiversity of the site in accordance with policy CS35 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(o), DP/3(o) and NE/6 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

Source Documents	**Location**
Link to the National Planning Policy Framework: http://planningguidance.communities.gov.uk/blog/policy/ Link to the Waste Management Plan for England: https://www.gov.uk/government/publications/waste-management-plan-for-england Link to the National Planning Policy for Waste: https://www.gov.uk/government/publications/national-planning-policy-for-waste Link to Cambridgeshire and Peterborough Minerals and Waste Core Strategy and Site Specific Proposals: http://www.cambridgeshire.gov.uk/info/20099/planning_and_development/49/water_minerals_and_waste/7 Link to South Cambridgeshire Development Control Policies DPD: https://www.scambs.gov.uk/ldf Link to Alan Stratford & Associates revised report dated March 2016: http://planning.cambridgeshire.gov.uk/swift/apas/run/WCHDISPLAYMEDIA.showImage?theSeqNo=1950955767&theApnkey=39543&theModule=1 Link to Planning Committee report 12 May 2016: https://cmis.cambridgeshire.gov.uk/ccc_live/Meetings/tabid/70/ctl/ViewMeetingPublic/mid/397/Meeting/71/Committee/8/SelectedTab/Documents/Default.aspx	

Demolition of existing buildings and 3, 14 metre high chimneys; erection of a pyrolysis plant building connected to a waste reception building; erection of a 25 metre high chimney; 2no containers for gas engines; electricity substation; upgrading and extension of internal access track around perimeter of the memorial garden

AT: **Novus Environmental, Novus House, Thriplow, SG8 7RR**

APPLICANT: **Paul Bourchier, Vetspeed**

LPA NO: **S/0008/15/CW**

To:	**Planning Committee**
Date:	**12 May 2016**
From:	**Head of Growth & Economy**
Electoral division(s):	**Duxford**
Purpose:	**To consider the above planning application**
Recommendation:	**That planning permission is granted subject to the conditions set out in paragraph 10.1**

Officer contact:	
Name:	Helen Wass
Post:	Development Management Officer
Email:	Helen.Wass@cambridgeshire.gov.uk
Tel:	01223 715522

1.0 INTRODUCTION

1.1 The proposed development is on a site which functions as both a waste disposal site and the Cambridge Pet Crematorium. It has planning permission for the incineration of hazardous waste; the disposal of hazardous waste in an autoclave (apparatus for sterilising objects by steam under pressure); animal carcass incineration; and storage of hazardous and non-hazardous waste prior to off-site disposal or recovery. The hazardous waste facility is not currently operational and the main waste management activity is the autoclave for clinical waste.

2.0 THE SITE AND SURROUNDINGS

2.1 The site is in open countryside approximately 1.5 km south of Thriplow, immediately to the southeast of the A505 from which direct access is derived. The closest residential properties are the five at or beside Heath Farm (300 – 600 metres to the southwest on the A505) and Heath Pond Cottages (400 metres to the northeast). The villages of Fowlmere and Heathfield are approximately 2 km to the northwest and northeast respectively. The M11 is approximately 2.5 km to the northeast, beyond which are the villages of Whittlesford and Duxford. There are no settlements to the southwest, south and southeast of the site within 4 km although this area contains isolated farms, a cluster of properties at Chrishall Grange and a golf course.

2.2 There are no scheduled monuments within 2 km the site. The site is 1km southwest of the Duxford Airfield Conservation Area; 1.4km south of Thriplow Conservation Area; and 2.3km southeast of Fowlmere Conservation Area. The closest Sites of Scientific Interest (SSSI) are Fowlmere Watercress Beds (3.5 km northwest); Whittlesford – Thriplow Hummocky Fields (2km northwest and 3.8 km northeast); Thriplow Meadows (2.3km north); and Thriplow Peat Holes (2.6km northeast).

2.3 The current planning application area forms about a fifth of an approximately 2.8 hectare waste management complex. A number of large, industrial-type buildings and associated service yards and car park occupy 0.8 hectare at the north of the complex adjacent to the A505. The new building will be located within this area. 1.6 hectares is a landscaped pet cemetery and memorial garden and a 0.40 hectare area of land adjacent to and accessed from the main complex is used for storage.

3.0 THE DEVELOPMENT

3.1 The proposed development comprises:-

- Demolition of a 26 x 30 metre (780 m2) building and 3 x 14 metre high chimneys
- Construction (partly on the same footprint) of a 26 x 26 metre x 13 metre high pyrolysis plant building, interconnected by the fuel feed conveyor, to a (27 x 26 metre x 11 metre high waste reception building

high) giving net increase of 598 m2 floor space. The building will be portal framed and profile clad.

- Erection of 25 metre high chimney
- Combined heat and power (CHP) plant comprising 2 biogas engines housed in 5.5 x 18 metre containers
- Electricity substation
- Upgrading and extension of internal access track around the perimeter of the memorial garden

3.2 Pyrolysis is a thermochemical decomposition of organic material at elevated temperatures in the absence of oxygen (or any halogen). It involves the simultaneous change of chemical composition and physical phase, and is irreversible. The pyrolysis plant would process a mixture of waste wood, waste packaging, oil contaminated rags and clinical and pharmaceutical waste. It would be delivered to the site in bulk containers or similar HGVs and offloaded into a dedicated bunker within the waste reception building. Approximately 20% of the feedstock would be residual waste from the adjacent autoclave plant, which would otherwise be transported off site for disposal. No waste would be processed or stored externally. Proposed throughput would be 25,000 tonnes per year, or 68 tonnes per day.

3.3 The energy generated from the pyrolysis process would comprise 4MW of electricity, which would be used both on site and exported to the grid via a transformer/substation. Additionally, up to 5MW of medium pressure steam would be produced and used in the autoclaves. Furthermore, the carbonaceous char which results from the pyrolysis process would be combusted at high temperature to generate hot gases that would be used to heat the outside of the pyrolysis processing container and drive the reactions taking place within it. Any resulting ash would be melted within the combustion chamber and extracted in the form of vitrified slag which can be used as an aggregate, usually in block-making. The outputs of the pyrolysis process are steam, power, exhaust gases, ash and slag residue. The input waste is typically reduced in volume by over 90% and the vitrified slag residue is usually 5% of the total weight of the material throughput.

3.4 The proposed development is environmental impact assessment (EIA) development and the application was accompanied by an environmental statement (ES).

4.0 CONSULTATIONS

4.1 South Cambridgeshire District Council

(i) Historic Buildings Officer
The site is in close proximity to Thriplow, Fowlmere and Duxford Airfield conservation areas which include many listed buildings. Due to the landscape, there are many long ranging vistas into and out of the conservation areas. The current buildings are fairly small in scale and largely have the character of modern agricultural units. The proposed

alterations include a significant increase in height, with the chimney increasing from 14.4 metres to 24.4 metres. This significant increase in the height of the chimney could have a negative impact on the setting of these conservation areas. The increase in bulk and height of the buildings may also have a negative impact. Visuals of the proposed alterations, from the conservation areas, need to be provided to fully assess any impact on the setting of these heritage assets.

[Following the submission of an appraisal of the potential effects on the setting of conservation areas and addendum addressing visibility from Duxford Airfield]

Although some more viewpoints could have been considered, from those that have been provided, it is considered that if the chimney can be viewed, it will be at a distance that will mean the impact on the Duxford Airfield conservation area is minimal.

ii) Landscape Officer

The proposed buildings are far larger than the existing both in terms of footprint and height. They are also placed closer to the site boundaries and are likely to produce negative landscape impacts. The buildings will be particularly dominant viewed when approaching from the west and from the northern road frontage to the A505. The current layout features storage yards on the western boundary. Where will these yards be located within the proposed layout? The proposed colour finishes to the buildings (light greys on roofs etc) may result in additional landscape impact particularly when viewed from elevated positions e.g. approaching from Thriplow to the north or from Chrishall from the south. The proposed access track seems to remove several areas of garden/pet graves and passes very close to the pond area, again removing areas of landscape. Boundary hedges and trees on the western boundary are also removed.

[In response to additional information and proposed landscape mitigation]

• The proposed olive green colour with a light grey chimney is acceptable, but the building should have some additional coloured panels to break it up. It will be a formidable bulk if painted all one shade. The roof panels should be muted colours as well – not white or silver.

• The existing proposed new access route is very long and wide enough for HGVs to pass and will remove a number of memorials etc. The large pond will also be within approximately 4 metres of the new road, and the weight surcharge from traffic and construction could affect the banks. There is a shorter alternative route which would remove only small areas of hedge and shrub planting (not barns, ponds etc.). Some re-modelling of the visitors parking area would also be needed.

• Native planting to the perimeter of the site is welcome but this could be continued to complete the west and northern boundaries. There would appear to be soft areas to plant into. The proposed plant species are acceptable.

iii) Environmental Health Officer

During the operational phase of development, the use of pyrolysis to derive energy from waste will be subject to authorisation by the Environment Agency as a Schedule 1, Section 5.1 Part A (1) installation. As such detailed dispersion modelling and impact assessments of all emissions will be undertaken. The Air Quality Assessment report submitted with the planning application satisfactorily demonstrates that there are no implications for national air quality standards from the proposed plant emissions under normal operating conditions. This assessment however is reliant on the chimney stack height of 25 metres. Should the height of the proposed point of emission be modified, this would need to be reviewed.

The process will result in the formation of waste fly ash and slag and these materials should be subject to appropriate waste management controls.

The noise assessment submitted with the planning application considers noise from operational and construction phases of development. The assessment has been undertaken in accordance with current guidance and good practice and shows that there will be no significant impact from the proposed development. Noise will also be subject to control by the Environment Agency permitting process.

If permission is granted conditions to control noise and dust during the demolition and construction phases of development are recommended.

The Health Impact Assessment [submitted in December 2015] is satisfactory.

4.2 Thriplow Parish Council: A majority of councillors object to the development. Their concerns are:

- The increase in HGV traffic on the A505
- Obstruction of the A505 at peak times, when lorries attempt to enter the plant when coming from the Royston direction
- Lack of new systems of traffic control
- The risk of lorries using the roads through Thriplow village which are narrow and unsuitable for HGVs
- If permission is granted delivery and collection times should be limited by condition to avoid rush hours and commercial traffic banned from Thriplow village
- The possible effect of the erection of a very high chimney on the IWM and its air shows. The IWM is extremely important to the community, providing employment and contributing to the local economy. Nothing

should be allowed to impede this. Any risk to the continued prosperity of the IWM and its existence does not have the support of TPC.

- The visual impact of the development as a whole. Better screening is needed.
- Impact of pollution on Heathfield residents.

4.3 Duxford Parish Council: No objection as long as the development does not interfere with air show operations.

4.4 Whittlesford Parish Council: No comments received.

4.5 Fowlmere Parish Council: Share Thriplow Parish Council's concerns and understand there are additional concerns at Duxford Imperial War Museum and recommend refusal. The operations have outgrown the site if they require the proposed level of enhanced capability.

4.6 Environment Agency: The proposed pyrolysis plant and building will overlap the existing installation regulated under an environmental permit. Should the existing permitted activities be relocated to other appropriate parts of the site to make way for the new pyrolysis plant, the existing permit may need to be varied to reflect these changes including the revised locations of any emission points.

4.7 The site overlies a principal aquifer (part of the Cam and Ely Ouse Chalk groundwater body, an EU Water Framework Directive Drinking Water Protected Area) and is located within a groundwater source protection zone 3 designated to protect public water supply abstractions in the area. The overlying soils at the site are classified as having a high leaching potential, meaning they can readily transmit a wide variety of pollutants to the groundwater. The site also overlies a secondary A aquifer. The regional use of groundwater in this area makes the site highly vulnerable to pollution. The previous uses of the site which include landfill and an incinerator are considered to be potentially contaminative. The site is considered to be of high sensitivity and could present potential pollutant/contaminant linkages to controlled waters.

4.8 Sufficient information has been provided to demonstrate that risks from land contamination are understood and can be addressed. The risks to controlled waters posed by contamination at this site can be addressed through appropriate measures. However, further details will be required in order to ensure that risks are appropriately addressed prior to the development commencing and being occupied. It is important that remediation works, if required, are verified as completed to agreed standards to ensure that controlled waters are suitably protected. The previous objection is withdrawn provided that the recommended planning conditions and informatives are included. Without these conditions, the proposed development on this site poses an unacceptable risk to the environment and the objection would be maintained.

[Recommended conditions cover: ground contamination remediation strategy; contamination not previously identified; surface water disposal scheme; piling and other ground penetration]

4.9 Imperial War Museum Duxford : Object to the proposed development because it will put airfield operations at risk and consequently have a negative impact on the museum as an important visitor and heritage attraction, on the important aerial vistas and the many on-site partners and their businesses which make a large contribution to the local economy.

IWM Duxford's full responses are attached at Appendix A.

4.10 CCC Transport Assessment and Highway Development Management: There is no objection from a traffic generation and highway capacity point of view. A traffic management plan for the demolition and construction phases is required. The area shown as a manoeuvring space for HGVs should be kept free from any obstruction. These matters can be secured by condition if permission is granted.

4.11 CCC Flood & Water Team (Lead Local Flood Authority): No objection. There will be no increase in impermeable area. The surface water will be pumped to an underground sump where it will be treated, stored and then pumped to a pond. The applicant has demonstrated that water can be attenuated on site with the use of existing drainage features.

4.12 CCC Ecology Officer:

(i) Common reptiles - The applicant's ecologist has identified the meadow adjacent to the site as being suitable to support common reptiles and have recommended that a reptile exclusion fence is installed along the inside boundary fenceline of the proposed access track and interior of the grassy slope.

ii) Great Crested Newts (GCN) – The applicant's ecologist identified the ornamental pond in the memorial garden as being potentially suitable breeding habitat for GCNs. The primary function of the pond is to accept water from the roofs of the buildings. It dries out in the summer and consequently is not suitable as a breeding pond for Great Crested Newts. The applicant's ecologist proposes that during construction works a watching brief for Great Crested Newts be implemented. This approach is supported and should be secured by condition.

iii) Landscape Scheme - The inclusion of native tree and shrub planting within the landscape proposals is welcomed.

4.13 CCC Waste Team: Planting trees and / or a hedgerow along or close to the boundary with the County Council-owned closed landfill site immediately to the west should be done with caution to ensure that the integrity of the clay cap is not breached. Pathways thorough which landfill gas could migrate must not be created.

5.0 REPRESENTATIONS

5.1 Representations have been received from 8 local residents; 6 businesses or individuals with aviation interests; 2 visitors to IWM Duxford; the MP for South Cambridgeshire and the local member. A copy of their letters and emails will be placed in the Members' Lounge one week before the meeting. The local residents' concerns are summarised below:

- New technology so its effects on people, animals, crops and the environment isn't known
- Effect of emissions on local residents and visitors to IWM Duxford
- Aircraft safety and effect on IWM Duxford and the local economy
- HGV traffic will worsen congestion and safety on the A505 and air quality
- HGVs may use unsuitable local roads through villages
- Impact on experience of visitors to the pet crematorium
- Different cladding and more screening is needed to lessen the impact of the new building on the Green Belt

Those with a personal or professional interest in aviation consider that the proposed chimney will be a hazard to aircraft.

5.2 Heidi Allen, MP for South Cambridgeshire: Strongly objects to the application, having serious concerns about the danger this proposal represents to air traffic safety and therefore the safety of the local community, businesses and visitors to the area.

5.3 Cllr Peter Topping (local member): Has raised concerns about the waste processing technology and the potential hazard from emissions and objects to the proposal on grounds of impact of the additional traffic on the A505 and the risk to aircraft at IWM Duxford.

6.0 PLANNING HISTORY

[temporary time-expired permissions omitted]

6.1 S/1480/82 – Incinerator for domestic animals – Granted 02-02-1983

S/0671/85 – Additional incinerator plant- Granted 18-06-1985

S/0657/90 – Incinerator plant – Granted 30-07-1990

S/2205/90 – Burial area for domestic animals – Refused 17-04-1991

S/1356/94 – Consolidation of planning consents and proposals for long-term on site – Granted 23-01-1995

S/01228/97/CW - Roof extension & cold room to store dead animals prior to incineration – Granted 24-12-1997

S/01561/97/CW – Variation of condition 9 of S/1356/94 to permit incineration of veterinary clinical waste- Granted 22-01-1998

S/02143/98/CW - Variation of condition 10 of S/1356/94 to permit operation of incinerators 24 hours 7 days per week Granted 10-05-1999

S/00434/99/CW – Erection of storage, office & mess building; covered waste transfer area & garden machinery store- Granted 13-08-1999

S/1676/99/CW – Development without compliance with condition 9 and variation of condition 1 of S/1356/94 to change types of waste that can be treated – Granted 21-12-1999

S/00496/05/CW - Variation of condition 1 of S/1356/94 (as amended by S/1676/99) to allow non-veterinary (i.e. human) clinical waste to be imported, stored and handled on site – Granted 22-09-2005

S/00497/05/CW – Erection of buildings to accommodate the installation of autoclave waste management equipment plus associated office/visitor facilities – Granted 22-09-2005

S/01649/10/CW – Replacement incinerator plant and associated chimney stack – Granted 03-03-2011

Land to the east of Cambridge Pet Crematorium

6.2 The land immediately to the east of the pet crematorium adjacent to the A505 is being used for vehicle parking and the storage of containers, effectively an extension of the waste management site from which it is accessed. Planning application no S/0868/16/FL was registered by South Cambridgeshire District Council on 23 March 2016 for use of land as staff car/lorry park and use of existing barn for ancillary storage (retrospective).

7.0 PLANNING POLICY AND RELEVANT GUIDANCE

7.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 and section 70(2) of the Town and Country Planning Act 1990 require that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The relevant development plan policies are set out in paragraphs 7.3, 7.4 and 7.6 below.

7.2 The National Planning Policy Framework (March 2012), the Waste Management Plan for England (December 2013) and National Planning Policy for Waste (October 2014) are also material planning considerations.

7.3 Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (adopted July 2011) (the M&W Core Strategy)

CS2 Strategic vision and objectives for sustainable waste management development
CS15 The location the future waste management facilities
CS18 Waste management proposals outside allocated areas
CS19 The location of hazardous waste facilities - resource recovery and landfill
CS22 Climate change
CS24 Design of sustainable minerals and waste management facilities
CS29 The need for waste management development and movement of waste
CS30 Waste Consultation Areas
CS32 Traffic and highways
CS33 Protection of landscape character
CS34 Protecting surrounding uses
CS35 Biodiversity and geodiversity
CS36 Archaeology and the Historic Environment
CS39 Water resources and water pollution prevention
CS40 Airport safeguarding

7.4 Cambridgeshire and Peterborough Minerals and Waste Site Specific Proposals Development Plan Document (adopted February 2012) (the M&W SSP)

SSPW8 Waste consultation areas (reference W8AR, Pet Crematorium, A505, Thriplow)

7.5 The Location and Design of Waste Management Facilities Supplementary Planning Document (adopted July 2011)

7.6 South Cambridgeshire Development Control Policies Development Plan Document (July 2007) (SC DCP)

DP/1 Sustainable Development
DP/2 Design of New Development
DP/3 Development Criteria
DP/6 Construction Methods
GB/3 Mitigating the impact of development adjoining the green belt
NE/4 Landscape Character Areas
NE/6 Biodiversity
NE/8 Groundwater
NE/9 Water and Drainage Infrastructure
NE/10 Foul Drainage – Alternative Drainage Systems
NE/11 Flood Risk
NE/12 Water Conservation
NE/14 Lighting Proposals
NE/15 Noise Pollution
NE/16 Emissions
CH/5 Conservation Areas

7.7 The South Cambridgeshire Local Plan 2011-2031 was submitted to the Secretary of State in March 2014 and is being examined jointly with the Cambridge City Local Plan by planning inspectors at hearings which

will resume in June 2016. The new Local Plan is not yet, therefore, part of the adopted development plan. However, policies to which there have been no objections should be afforded some weight.

8.0 PLANNING CONSIDERATIONS

8.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies and how these are expected to be applied. It is a material consideration in planning decisions and at its heart is a presumption in favour of sustainable development. It states that:

- Proposed development that accords with the development plan should be approved without delay;
- Where the development plan is absent, silent or relevant policies are out-of-date, permission should be granted unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or specific policies in the NPPF indicate development should be restricted; and
- Proposed develop that conflicts with an up-to-date development plan should be refused unless other material considerations indicate otherwise.

8.2 The Government identifies 3 dimensions to sustainable development which give rise to need for the planning system to perform a number of roles which it states should not be undertaken in isolation:

- an economic role: contributing to building a strong, responsive and competitive economy, ……. including the provision of infrastructure;
- a social role: supporting strong, vibrant and healthy communities, …… by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- an environmental role: contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

8.3 The National Planning Policy for Waste (NPPW) refers to the Waste Management Plan for England (WMPE) in which the Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities. The NPPW also gives advice on the determination of planning applications and provides locational criteria against which sites should be tested. These criteria are covered by development plan policies.

8.4 The Government's Strategy for Hazardous Waste Management in England sets out a vision for improved hazardous waste treatment. The Strategy aims to continue to encourage policies which lead to

reductions in hazardous waste arisings, and the wider application of the waste hierarchy to the management of hazardous waste.

8.5 The key issues are the principle of energy from waste by means of pyrolysis; the suitability of the proposed location; impact on the safety of operations at Duxford airfield; and whether the process can be undertaken without causing unacceptable harm to the local environment including both ecological and human receptors.

Principle of the development

8.6 Some elements of the proposed feedstock will be classified as hazardous e.g. oil contaminated rags and clinical and pharmaceutical waste and therefore options for dealing with them towards the top of the waste hierarchy (prevention, preparing for re-use and recycling) are limited. Energy recovery from waste is preferable to disposal by landfill or by incineration without energy recovery. Co-locating the proposed pyrolysis plant at an existing waste management site has benefits which weigh in the project's favour. Approximately 20% of the feedstock will be residue from the adjacent autoclave plant which would otherwise be transported off site for disposal. Steam from the pyrolysis process would be used in the autoclaves in place of that produced by oil fired boilers and the electricity would be used on site, with the surplus exported to the grid. This would replace electricity taken from the grid, typically generated by fossil fuel power stations. Large quantities of waste wood have been stockpiled at a number of locations within the county therefore a means of disposal with energy recovery would be a useful contribution to the network of waste management facilities.

8.7 For these reasons the proposed project would contribute towards addressing climate change in compliance with M&W Core Strategy policies CS2 and CS22, and form part of a network of waste management facilities in compliance with policy CS15 and the WMPE.

The proposed location

8.8 M&W Core Strategy policy CS30 and M&W SSP policy SSPW8 define waste consultation areas around waste management facilities which make a significant contribution to managing any waste stream. Their purpose is to ensure that these facilities are protected from development that would prejudice existing or future waste management uses. The Cambridge Pet Crematorium and associated waste management facility is protected by a waste consultation area (reference W8AR). It is therefore recognised as a site whose future for waste management should be protected.

8.9 M&W Core Strategy policy CS18 deals with waste management proposals outside allocated areas and states that they will be considered favourably where this is consistent with the spatial strategy for waste management and it can be demonstrated that they will contribute to sustainable waste management, moving waste up the

waste hierarchy. These matters have been dealt with in paragraphs 8.6 and 8.7 above. CS18 goes on to identify the types of site where waste recovery and recycling facilities may be permitted and these include: for on-site management of waste; co-location with complementary activities (including existing permanent waste management sites); and on previously developed land. The proposed site fulfils all of these criteria and also complies with SC DCP policy DP/1 (c) which gives priority to the use of brownfield sites. The supplementary planning document *The Location and Design of Waste Management Facilities* also favours the use of previously developed land and recognises the benefits of the co-location of waste management facilities.

Aircraft Safety

8.10 Considerable concern has been raised by IWM Duxford, other members of the flying community and local residents about the impact of the proposed 25 metre high chimney on aircraft landing and taking off and consequent impacts on the museum and its contribution to the local economy.

8.11 Duxford is licensed as an aerodrome with the Civil Aviation Authority (CAA). CAA advice (*Guidance on Civil Aviation Authority (CAA) Planning Consultation Requirements* – 2 August 2012) is that aerodrome safeguarding responsibility rests with the aerodrome licence holder/operator not the CAA. DFT/ODPM Circular 1/2003 – *Advice to local planning authorities on safeguarding aerodromes and military explosives storage areas* states that operators of licensed and unlicensed aerodromes should "take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities." One method, recommended by the CAA to aerodrome licensees, is to lodge a non-official safeguarding map with relevant local planning authorities. The Circular asks local planning authorities to respond sympathetically to requests for non-official safeguarding. The purpose of a safeguarding map is to indicate to a local planning authority those types of development upon which consultation is required. It is required if the height of any building or structure would, as a result of the development, exceed the level indicated on the map.

8.12 There is no policy in the adopted South Cambridgeshire development plan relating to aerodrome safeguarding. The Annex to Department for Transport Circular 1/2010, Control of Development in Airport Public Safety Zones requires such zones be safeguarded and identified in development plans. Policy TI/6 of the Proposed Submission Local Plan (July 2013) refers to public safety zones around Cambridge Airport. Within this area development is restricted whilst the airport is operational in order to minimise the number of people at risk of death or injury in the event of an aircraft crash on take-off or landing. South Cambridgeshire District Council's proposed Minor Changes were

published in March 2014, and as a response to a representation, the following was added:

Air Safeguarding Zones

10.34 Applications for development within Cambridge Airport's Air Safeguarding Zones (shown in Figure 12a) will be the subject of consultation with the operator of the airport and the Ministry of Defence. Restrictions in height, or changes to the detailed design of development may be necessary to mitigate the risk of aircraft accident and maintain the operational integrity of the airport.

10.35 The purpose of airport safeguarding is to take the measures necessary to ensure the safety of aircraft, their passengers and crew while taking off or landing or while flying in the vicinity of Cambridge Airport. This is achieved by assessing proposed development so as to:

- *protect the air through which aircraft fly;*
- *protect the integrity of radar and other electronic aids to air navigation;*
- *protect visual aids, such as approach and runway lighting, by preventing them from being obscured, or preventing the installation of other lights; and*
- *avoid any increase in the risk to aircraft of a birdstrike.*

10.36 A similar Aerodrome Safeguarding Zone applies to the Imperial War Museum Duxford (shown on Figure 12b). Applications for development within Duxford's Air Safeguarding Zones will be the subject of consultation with the aerodrome operator.

8.13 Figure 12b is shown in Appendix B. The proposed development falls within Zone 1 where consultation with IWM Duxford is required for development proposals over 10 metres in height. The applicant was advised in February 2015 to contact IWM Duxford at the pre-application stage to discuss any potential air safety matters and his attention was drawn to M&W Core Strategy policy CS40.

CS40 Airport Safeguarding
Mineral and waste management development within the safeguarding areas of airports or aerodromes will only be permitted where it can be demonstrated that the development and associated operations and restoration would not constitute a significant hazard to air traffic. The preparation of an approved Bird Management Plan may be required.

8.14 IWM Duxford has objected to the planning application for a number of reasons but principally because they believe that a 25 metre high chimney in the location proposed will be a hazard to aircraft landing and taking off from the airfield (see paragraph 4.9 above and Appendix A). The applicant commissioned an assessment by a specialist consultant who concluded that the proposed development does not impact on any airport obstacle limitation surfaces so is not a significant hazard to air traffic safety. This is clearly an important and highly

specialist technical matter. It is a material planning consideration which needs to be given consideration. For this reason, and faced with opposing views, an independent consultant was engaged to provide advice. Alan Stratford and Associates Ltd's (ASA) resultant report included advice from a specialist vintage aircraft pilot. The ASA report (revised following receipt of further information from the applicant) concludes that:

a) As a CAA licensed airfield, Duxford must ensure that no obstacles breach the (minimum) take-off and climb and approach surfaces. At Duxford, both the take-off and climb and the approach surfaces would be approximately 27m above the top of the proposed chimney, so no breach would occur.

b) Based on a typical 3 degree glide slope surface, landing aircraft would clear the chimney by some 45.08m (or 147.9ft). This represents an adequate clearance height for both vintage and more modern aircraft.

c) All aircraft using Duxford could turn after take-off to avoid the chimney stack and smoke plume.

d) Smaller vintage and more modern aircraft would make a curved approach into the airfield to avoid overflying the chimney and would avoid the smoke plume.

e) Larger vintage and more modern aircraft use the asphalt rather than the grass runway and therefore do not directly overfly the chimney on approach. Even if the grass runway were to be used, the clearance height would be sufficient.

f) There are no safety risks imposed by aircraft flying through the smoke plume and pilots would not inhale the smoke fumes.

g) If desired by the IWM, or required by the CAA, information about the stack location may be included in the UK AIP EGSU AD2.10, and in Pooley's Flight Guide for Duxford (Reference 9). No type A or obstacle charts are currently published for Duxford.

8.15 Based on ASA's advice it is considered that the proposed development will not constitute a significant hazard to air traffic so is compliant with M&W Core Strategy policy CS40.

Design and Visual Impact

8.16 The existing waste management facility, including the Cambridge Pet Crematorium, is an established site within the countryside and is outside but close to the Cambridge Green Belt. Policy GB/3 requires the planning authority to take account of any adverse impact on the Green Belt.

8.17 M&W Core Strategy policy CS24 requires a high standard of design and for proposed waste management development to be consistent with the guidance provided in supplementary planning document *The Location and Design of Waste Management Facilities*. The SPD identifies rural locations on the main road network as being potentially appropriate for a range of waste management facilities. It goes on to say that the design should reflect the scale and design of agricultural buildings. M&W Core Strategy policy CS33 requires waste management development to be assimilated into its surroundings and local landscape character area. SC DCP policies DP/1(p), DP/2(a), DP/3(m) and NE/4 have a similar aim.

8.18 The proposal is to replace the existing industrial-style building with one which will be larger in height and footprint. It will result in a longer and higher elevation facing the A505 and will be more dominant when viewed from the west and from the A505 to the north. Although the site is in open countryside, the immediate context of the development site is industrial and these factors should influence the design of the new building. The applicant proposes that the building would be clad in olive green with an olive green roof. The Landscape Design Officer considers this to be acceptable but suggests that this will result in a monotonous façade which could be broken up by the use of coloured panels. The applicant has agreed to make these changes to the scheme.

8.19 The height of the chimney has been determined by atmospheric dispersion modelling. It will be considerably wider and higher than the existing chimneys and colour will be important in lessening its impact. The proposed light grey is considered appropriate by the Landscape Design Officer.

8.20 The existing internal vehicle circulation arrangements are not ideal, with waste delivery and collection vehicles doubling back to use the weighbridge and access the waste processing areas. There is potential for conflict with members of the public who are clients of the pet crematorium. The proposed new internal access road will follow the perimeter of the site and surround the memorial garden on three sides. The applicant proposes to plant hedges along both sides of the new access road, new trees principally on the inner side and woodland on an existing bund at the southeast corner of the site. The species proposed are appropriate and it is considered that the proposed landscaping scheme will mitigate the impact of the new access road. The Landscape Design Officer has suggested an alternative much shorter route for the access road close to the buildings and therefore disturbing less of the memorial garden. The developer considered this option but discounted it because of the negative impact it would have on visitors to the pet crematorium.

8.21 The proposed landscaping scheme has been amended to include tree planting at the northwest corner of the site. This will go some way to mitigating the impact of the proposed new building from the west and north from where it will be most prominent. However, bearing in mind

the concerns of the County Council's Waste Team (paragraph 4.13) the applicant must ensure that tree planning does not harm the clay cap to the former landfill site.

8.22 IWM Duxford has raised concerns about the impact that the proposed development will have from the air. However, it is considered that the view experienced by pilots will be of short duration and from above the impact of a larger building and taller chimney will not be significant; the overall footprint of the waste complex as a whole will not change.

8.23 Although the new building and chimney will make the waste management complex more prominent in the landscape it is considered that with the mitigation provided by appropriately coloured cladding and panels and more extensive landscape planting the impact on the Green Belt will not be significant and not unacceptable in the landscape generally. The proposal therefore complies with the policies referred to in paragraphs 8.16 and 8.17.

Emissions to air

8.24 Concerns have been raised by local residents that the proposed technology is new and the emissions to air may have an adverse effect on people, animals, crops and the environment. M&W Core Strategy policy CS34 seeks to protect the environment, human health and safety and neighbouring land uses from significant harm. SC DCP policies DP/1(l), DP/3(n) and NE/16 have similar aims. As well as planning permission, the proposed pyrolysis plant will need an environmental permit from the Environment Agency in order to operate.
The planning application process determines if the development is an acceptable use of the land whilst environmental permitting determines if an operation can be managed on an ongoing basis to prevent or minimise pollution.

8.25 NPPF para 122 states that:

"*….. local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities."*

8.26 There is a similar message in the National Planning Policy for Waste which says that when determining planning applications, planning authorities should:

"concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work

on the assumption that the relevant pollution control regime will be properly applied and enforced."

8.27 The Environment Agency has not objected to the proposed development and for the reasons set out in paragraphs 8.24 – 8.26 above the control of pollution should be a matter for the environmental permit.

8.28 SC DCP policy DP/1 requires applications for major development to be supported by a Health Impact Assessment. The environmental health officer is satisfied with the conclusions of the assessment submitted as part of this application.

Noise

8.29 Waste will be unloaded and subsequently treated within the new building. The gas engines which have the greatest potential to generate noise will be housed within containers. The environmental health officer agrees with the applicant's assessment that there will be no significant noise impact from the proposed development. As she observes, noise will also be controlled by the environmental permit. The proposed development is, therefore, compliant with M&W Core Strategy CS34 and SC DCP policies DP/3(n) and NE/15 in respect of noise.

8.30 It is the nature of the energy from waste technologies that at least part of the process must take place continuously and the applicant proposes that the pyrolysis plant will operate 24 hours per day, every day. The hours of operation of the autoclave and incineration processes are not restricted by planning condition. For the reasons set out in the previous paragraph there is no reason why the proposed pyrolysis plant should not operate as proposed.

Protection of water quality and resources

8.31 The site is within Groundwater Protection Zone 3 so the proposed development must be designed to minimise the risk of contamination. M&W Core Strategy policy CS39 states that development will only be permitted where it is demonstrated that there would be no significant risk to the quantity or quality of surface or groundwater resources and adequate water pollution control and monitoring measures have been incorporated. SC DCP policies DP/1(l), DP/3(r) have similar aims. The Environment Agency initially objected to the proposal because there was insufficient information to demonstrate that the risk of pollution to controlled waters was acceptable. The applicant subsequently submitted a report which has demonstrated that risks from land contamination are understood and can be addressed appropriately. The Environment Agency withdrew its objection subject to conditions being imposed to secure a land remediation strategy; a mechanism for dealing with previously unidentified contamination, a surface water drainage scheme and restriction on piling.

8.32 Provided the Environment Agency's recommended conditions are imposed the proposed development would comply with M&W Core Strategy policy CS39 and SC DCP policies DP/1(l), DP/3(r) and NE/8.

Traffic impact

8.33 M&W Core Strategy policy CS32 requires that:

- access to the highway network serving the site to be, or made suitable, and able to accommodate any increase in traffic and / or the nature of the traffic associated with the development; and
- any associated increase in traffic would not cause unacceptable harm to the environment, road safety or residential amenity.

SC DCP policy DP/3(b) has similar aims.

8.34 A number of local residents and parish councils consider that the traffic generated by the proposed development will exacerbate the congestion already experienced on the A505 at certain times and slow-moving HGVs turning into and out of the site will compromise road safety. The applicant's transport information has been assessed by the County Council's Transport Assessment Officer and Highway Development Management Engineer. Neither has raised concerns about the safety of the access onto the A505 or the capacity of the highway network for the traffic that the proposed development will generate. They have taken into account that:

- no additional staff journeys will be generated;
- the proposed plant will generate 8 – 16 HGV trips per day (4 - 6 deliveries of waste with 1 vehicle every 2 days to take away residual material for disposal);
- existing operations at the site generate 46 HGV trips per day with peak departures of 3 per hour. The additional HGV trips would result in a maximum of 4 departures per hour;
- peak demand for the site as a whole is 0400 – 0700 but for the proposed development 1000 – 1100 during which period 2 or 3 HGV trips would be generated;
- the A505 carries between 18,000 and 19,000 vehicles per day near the site. An additional 16 trips split north and south would be less than the daily variation and imperceptible to other highway users;
- the applicant proposes to realign the kerb line to allow HGVs turning left out of the site to do so without encroaching the right hand turn lane for inbound traffic from the south west.

8.35 The proposed pyrolysis plant will handle waste streams for which there is not a wide choice of disposal options. Waste will, therefore, be drawn from a much wider area than for example construction or demolition waste. The site is located on the A505 which in turn is close to the M11. It is unlikely that HGVs travelling relatively long distances would find the road through Thriplow an attractive alternative to the principal highway network. In order to prevent the amount of traffic

generated by the pyrolysis plant increasing above that which has been assessed, a condition can be imposed restricting the volume of waste it may receive.

8.36 For the reasons given in paragraphs 8.34 and 8.35 it is considered that the proposed development complies with M&W Core Strategy policy CS32 and SC DCP policy DP/3(b).

Flood risk

8.37 The site is in flood zone 1. It is proposed that the existing methods of surface water drainage are used for the new development. Rainwater which lands on the roofs is diverted via sealed pipes to an underground sump, where it is stored separately from any other water sources. Once the holding sump is full, the clean water is pumped into the pond which is located in the memorial garden. The pond has a semi-permeable base which allows the water within to slowly filter down and dissipate to ground at a steady rate. Grey water (rainfall which falls on floors or hardstanding and any process water from the autoclaves) is diverted to sealed drains then stored in a tank where it is tested, treated and filtered. It is then used for the wet-scrubber abatement system, with any excess water transferred to a tanker and taken off-site for treatment and re-use elsewhere.

8.38 The new building will be slightly larger than those to be demolished. However, the impermeable area of the site will not alter as the increased floor-space will be constructed upon existing hard-standing. The applicant has stated that the new access road will be 100% permeable. However, details of its construction and surface have not been provided but these can be secured by condition.

8.39 The proposed development is not in an area at risk of flooding and will not increase the risk of flooding elsewhere so complies with the NPPF and SC DCP policies DP/1(i), DP/3(p) and NE/11.

8.40 The reuse of grey water in the waste management process is a sustainable use of water which complies with SC DCP policies NE/1(h) and NE/12.

Ecology

8.41 The site of the new building is intensively used for waste management processes and its ecological value is low. The buildings which are to be demolished have been assessed as having no potential for bat roosts. The proposed access road is around the perimeter of the memorial garden where the grass is mown short. The proposed landscaping scheme comprises planting with native hedge and tree species and as well as separating the access road from the memorial garden, will increase the biodiversity potential of the site.

8.42 The pond is reliant on water from the roofs of the buildings and dries out in periods of low rainfall so is not a permanent feature. It therefore

has little potential as habitat for great crested newts. The Council's ecologist has recommended that the ecological interest of the site can be safeguarded by a condition requiring that a Great Crested Newt watching brief be implemented during the construction work. This can be secured by condition.

8.43 It is considered that for the above reasons the proposed development complies with M&W Core Strategy policy CS35 and SC DCP policies DP/1(o), DP/3(o) and NE/6 all of which seek to protect and enhance the biodiversity interest of the site.

Historic environment

8.44 M&W Core Strategy policy CS36 seeks to protect designated and other heritage assets from harmful development. SC DCP policy CH/5 refers to the need to comply with legislative provisions and national policy. The NPPF requires the planning authority to consider the impact of proposed development on the significance of designated heritage assets. The conservation areas at Thriplow, Fowlmere and Duxford Airfield are designated heritage assets. IWM Duxford considers that the proposed development will be detrimental to the historic and aerial vistas of the airfield and the conservation area.

8.45 The applicant's appraisal has demonstrated to the satisfaction of South Cambridgeshire District Council's Historic Buildings Officer that if the chimney can be viewed, its impact will be minimal due to the distance from the Duxford Airfield Conservation Area. Thriplow and Fowlmere are further away from the site and the setting of their conservation areas will not be adversely affected by the proposed development. The aerial vista has been addressed in paragraph 8.22 above.

8.46 It is considered that the proposed development will not affect the significance of any designated heritage assets so complies with the NPPF, M&W Core Strategy policy CS36 and SC DCP policy CH/5.

Economy and tourism

8.47 The importance of IWM Duxford as a museum of national importance is acknowledged, as is its contribution to the local economy. The impact of the proposed development, specifically the proposed chimney, on the safety of aircraft using Duxford airfield has been assessed. The advice to the Council from an independent consultant is that there will not be a significant hazard to air traffic. For this reason it is considered that the operation of IWM Duxford will not be adversely affected by the proposed development and the importance of the museum and its contribution to the local economy will not be compromised.

9.0 CONCLUSION

9.1 The proposed development is consistent with Government policy to support energy recovery from waste which cannot be reused or recycled and to move the management of hazardous waste up the

waste hierarchy. The proposed development will provide a facility for treating specialist waste streams at an existing waste management site. As such it complies with development plan policy in principle and in locational terms as set out in paragraphs 8.6 and 8.9.

9.2 Objections and concerns have been raised principally about the impact on the safety of aircraft using Duxford Airfield, the importance of the museum and the related potential adverse impact on the economy; the impact on highway safety and congestion on the A505; and about the effects of emissions on people and the natural environment.

9.3 Independent advice to the County Council is that the proposed chimney does not pose a risk to aircraft. The County Council's highway officers consider that the access to the site is satisfactory and the highway network is capable of accommodating the small daily increase in traffic. Pollution to air will be regulated by the Environment Agency under the environmental permitting process.

9.4 Other environmental considerations such as landscape impact; protection of groundwater; flood risk and surface water drainage; the historic environment; and ecology have been taken into account in section 8 of this report. It has been concluded that there are no potential impacts that cannot be mitigated by planning conditions and the relevant locational criteria in the NPPW are met.

9.5 The proposed development is in accordance with the development plan and with national planning policies. There are no material considerations of sufficient weight to determine the application other than in accordance with the development plan and justify refusal of planning permission.

10.0 RECOMMENDATION

10.1 It is recommended that planning permission be granted subject to the following conditions:

1. The development hereby permitted shall have begun before the expiration of three years from the date of this permission. Written notification of the date of the commencement of the development shall be sent to the Waste Planning Authority within 7 days of such commencement.

   Reason: To comply with Section 91 of the Town and Country Planning Act 1990 as amended by section 51 of the Planning and Compulsory Purchase Act 2004

2. The development hereby permitted shall not proceed except in accordance with the details set out in the submitted application and supporting documents and the following drawings, except as otherwise required by any of the conditions set out in this permission:

   - Fig 1 Rev c Location Plan dated April 2016

- Fig 5 Rev e Proposed Site Plan dated April 2016
- Fig 6 Proposed Building Plan dated June 2015
- Fig 7 Proposed Roof Plan dated June 2015
- Fig ES 1 Plant Layout (undated – received 30 June 2015)
- Fig 8 rev b Proposed Building Elevations dated 03.16 – Colours amended
- Fig 9 rev a Proposed Building Elevations dated December 2015
- JEC/407/01 Rev B Planting Proposals dated April 2016
- Specification for Soft Landscape Works dated December 2015

Reason: To define the permission and to protect the character and appearance of the locality in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

3. External cladding shall not be attached to the fuel storage building or pyrolysis plant building until details of coloured panels have been submitted to and approved in writing by the Waste Planning Authority. The development shall not be carried out except in accordance with the approved details.

Reason: To break up the visual form of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

4. No demolition or construction shall take place until a traffic management plan has been submitted to and approved in writing by the Waste Planning Authority. The approved plan shall be complied with in full during all demolition and construction work.

Reason: In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

5. The area shown for HGV turning on Fig 5 Rev C Proposed Site Plan dated August 2015 shall be provided and retained and kept free from any obstruction at all times.

Reason: In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

6. The fuel storage building and pyrolysis plant building shall not be erected until a timetable for the phased implementation of the landscaping scheme shown on drawing no JEC/407/01 Rev B *Planting Proposals* dated April 2016 has been submitted to and approved in writing by the Waste Planning Authority. The approved timetable shall be complied with in full.

   Reason: To mitigate the visual impact of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a) & (j), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

7. No removal of hedgerows or trees shall take place between 1 March and 31 August inclusive unless a competent ecologist has undertaken:

   - a detailed check of vegetation for active birds' nests immediately before vegetation is cleared; and
   - provided written confirmation to the Waste Planning Authority prior to the removal of any vegetation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site.

   Reason: (i) In the interests of the biodiversity of the site in accordance with policy CS35 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(o), DP/3(o) and NE/6 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

8. If within a period of 5 years from the date of planting any tree or shrub, that tree or shrub, or any tree or shrub planted in replacement for it, is removed, uprooted or destroyed or dies, becomes in the opinion of the Waste Planning Authority, seriously damaged or defective, another tree or shrub of the same species and size as that originally planted shall be planted in the same place, unless the Waste Planning Authority gives written consent to any variation.

   Reason: To mitigate the visual impact of the buildings in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a) & (j), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

9. No development shall take place until a remediation strategy that includes the following components to deal with the risks associated with contamination of the site has been submitted to and approved in writing by the Waste Planning Authority:

1. A Preliminary Risk Assessment (PRA) including a Conceptual Site Model (CSM) of the site indicating potential sources, pathways and receptors, including those off site.
2. The results of a site investigation based on (1) and a detailed risk assessment, including a revised CSM.
3. Based on the risk assessment in (2) an options appraisal and remediation strategy giving full details of the remediation measures required and how they will be undertaken. The strategy shall include a plan providing details of how the remediation works shall be judged to be complete and arrangements for contingency actions.

No occupation of any part of the permitted development shall take place until a verification report demonstrating completion of works set out in the remediation strategy required by 9. (3) above has been submitted to and approved in writing by the Waste Planning Authority.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in accordance with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). Remediation measures may be needed as part of the construction phase so must be in place before development starts.

10. If, during development, contamination not previously identified is found to be present no further development shall be carried out until a remediation strategy detailing how this contamination shall be dealt with has been submitted to and approved in writing by the Waste Planning Authority. The approved remediation strategy shall be implemented in full.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

11. No development shall commence until a scheme for surface water disposal has been submitted to and approved in writing by the Waste Planning Authority. Infiltration systems shall only be used where it can be demonstrated that they will not pose a risk to groundwater quality. The development shall not be occupied until the approved scheme has been implemented in full.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). Elements of the surface water disposal arrangements may be need to be installed in an early part of the construction phase so the scheme must be in place before development starts.

12. No development shall commence until a detailed foundation design demonstrating how the foundation solution will integrate with the on-site capping layer and a foundation works risk assessment which shall demonstrate that there is no resultant unacceptable risk to groundwater have been submitted to and approved in writing by the Waste Planning Authority. The development shall not be occupied until the approved scheme has been implemented in full.

    Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework paragraphs 109, 120, 121, Environment Agency Groundwater Protection: Principles and Practice (GP3), policy CS39 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(l), DP/3(r) and NE/8 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). The foundation design will need to demonstrate that there is no resultant unacceptable risk to groundwater before development starts.

13. During the period of demolition and construction no power operated machinery shall be operated before 0800 hours on weekdays and 0800 hours on Saturdays or after 1800 hours on weekdays and after 1300 hours on Saturdays or at any time on Sundays or Bank or Public Holidays.

    Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/15 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

14. No development shall commence until a programme of measures to minimise the spread of airborne dust (including the consideration of wheel washing and dust suppression provisions) from the site during the demolition and construction period has been submitted to and approved in writing by the Waste Planning Authority. The approved measures shall be implemented in full for the duration of the demolition and construction phases.

Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/16 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007). This relates to the demolition and construction phases of the development so needs to be in place before development starts.

15. No external lighting shall be installed except in accordance with details that have been submitted to and approved in writing by the Waste Planning Authority.

Reason: In the interests of the amenity of local residents in accordance with policy CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/3(n) and NE/14 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

16. No part of the access track shown on Fig 5 Rev e dated April 2016 shall be constructed until details of its construction and surfacing have been submitted to and approved in writing by the Waste Planning Authority. The access track shall not be constructed except in accordance with the approved details.

Reason: To ensure that the access track is permeable and there is no increase in the impermeable area of the site in accordance with policies DP/1(i) and DP/3(p) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007).

17. No waste shall be stored outside the building.

Reason: To protect the visual appearance of the area in accordance with policies CS33 & CS34 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(p), DP/2(a), DP/3(m), GB/3 and NE/4 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

18. The amount of waste received for treatment by the pyrolysis plant in any one calendar year shall not exceed 30,000 tonnes excluding residual waste from the adjacent autoclave process.

Reason: The development has been assessed on this level of vehicle movements. In the interests of highway safety in accordance with policy CS32 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policy DP/3(b) of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

19. The Great Crested Newt watching brief set out in the AWS Ecology letter dated 21/03/2016 shall be implemented in full for the duration of the construction of the internal access road. If Great Crested Newt are

found, construction work shall stop and not recommence until a mitigation strategy has been submitted to and approved in writing by the Waste Planning Authority. The development shall be carried out in accordance with the approved mitigation strategy.

Reason: (i) In the interests of the biodiversity of the site in accordance with policy CS35 of the Cambridgeshire & Peterborough Minerals & Waste Core Strategy (adopted July 2011) and policies DP/1(o), DP/3(o) and NE/6 of the South Cambridgeshire Development Control Policies DPD (adopted July 2007)

Source Documents	**Location**
Link to the National Planning Policy Framework: http://planningguidance.communities.gov.uk/blog/policy/ Link to the Waste Management Plan for England: https://www.gov.uk/government/publications/waste-management-plan-for-england Link to the National Planning Policy for Waste: https://www.gov.uk/government/publications/national-planning-policy-for-waste Link to Cambridgeshire and Peterborough Minerals and Waste Core Strategy and Site Specific Proposals: http://www.cambridgeshire.gov.uk/info/20099/planning_and_development/49/water_minerals_and_waste/7 Link to South Cambridgeshire Development Control Policies DPD: https://www.scambs.gov.uk/ldf Link to Alan Stratford & Associates revised report dated March 2016: http://planning.cambridgeshire.gov.uk/swift/apas/run/WCHDISPLAYMEDIA.showImage?theSeqNo=1950955767&theApnkey=39543&theModule=1	

T 01223 499 379
F 01223 835 750
E getheridge@iwm.org.uk

Ms Helen Wass
Cambridgeshire County Council
Economy, Transport & Environment
Strategy & Development
Growth & Economy
Box CC1315
Shire Hall
Cambridge
CB3 0AP

6 October 2015

Dear Ms Wass

Novus Environmental, Novus House, Thriplow, Royston, SG8 7RR
Ref: S/0008/15/CW.

I refer to your letter dated 16 September 2015 regarding the above planning application. I am writing to register our objections to the proposed development.

We have grave concerns that allowing the current proposals to go ahead will not only put the sustainability of our airfield operations at risk but that, consequentially, it will negatively impact on the museum as an important visitor and heritage attraction, the important aerial vistas and our numerous onsite partners and their businesses. The continued operation of the airfield as a live and dynamic business is vital to making IWM Duxford unique.

There has been an operating airfield at Duxford since its completion by the RAF in 1918, and we are already in preparation to help celebrate its centenary in 2018 highlighting its importance not only regionally but nationally and internationally. Given our unique position and heritage IWM Duxford is popular with the general aviation community as well as the wider visiting public.

Our offer currently supports over 30- 40 on-site partners, 600 plus volunteers, 250 employees and 300,000 visitors (and growing per annum); which in turn generates over £30m per annum within the local economy; and we have ambitions to grow with the support of local partners.

IWM Duxford is of national and international importance. It is a branch of Imperial War Museums (IWM), a national museum with a national remit; indeed we have recently welcomed over 40,000 visitors to our recent Battle of Britain Anniversary air show weekend. IWM Duxford is a charging branch in that it charges an entrance fee for visitors. We know from recent research that one of the key reasons that visitors choose to come to IWM Duxford is the chance and ability to see aircraft in flight as well as on display. The key remit of IWM, as a whole, is learning and access and IWM Duxford has a long established, strong and vibrant educational programme. IWM Duxford is currently the number one visitor attraction in the East of England according to Trip-Advisor, playing a vital part in the diversification of the local economy, and helping attract visitors to other regional attractions and businesses.

As well as being a museum of national importance it is also home to a large number of third-party complementary businesses and organisations including conservation services, archive storage and management, historic aircraft flying partners and three regimental museums.

Over the past two decades, IWM has invested in excess of £40m in capital development of the site and welcomed circa eight million visitors. IWM Duxford works with stakeholder organisations including South Cambridgeshire District Council (SCDC), local Parish Councils, as well as education and skills providers, the Heritage Lottery Fund (HLF), Historic England and other cultural organisations and societies.

Duxford Airfield/Aerodrome

IWM purchased the airfield from Cambridgeshire County Council in 2009 to help secure the future and sustainability of both the airfield and the museum. IWM now own and operate the airfield/aerodrome, which is integral to the operation of the museum and the public offer. This airfield is licensed for 365 days per year and is the base for the largest collection of flying historic military aircraft in Europe – welcoming over approximately 5,000 visiting aircraft in addition to those based here at IWM Duxford; and seeing over 28,000 'movements' (landings) per year. This number was and is seen to grow significantly however these proposals will put this at risk. These aircraft are a unique historic collection; a significant and increasing part of the nation's aviation heritage and an essential part of the dynamic mix of interpretative exhibitions, active conservation work and flying aircraft for which IWM Duxford is world famous. In order to ensure early consultation of proposed local development, IWM Duxford has lodged a revised Aerodrome Safeguarding Map (see attached[1]) with South Cambridgeshire District Council as its primary local planning authority. This is in line with '*DfT/ODPM Circular 1/2003 - advice to local planning authorities on safeguarding aerodromes and military explosives storage areas*' which states:

> 'Operators of licensed aerodromes which are not officially safeguarded, and operators of unlicensed aerodromes and sites for other aviation activities (for example gliding or parachuting) should take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities. One method, recommended by the Civil Aviation Authority to aerodrome licensees, is to lodge a non-official safeguarding map with the local planning authority or authorities.'

IWM Duxford airfield is in regular use by aircraft of all types throughout the year. At times, particularly on air show days of which there are six per annum, the site is used intensively by aircraft of varying ages, type and size. Importantly, IWM Duxford is becoming the centre of excellence in restoring and flying vintage aircraft (particularly second world war aircraft) – with many partners focused at supporting this. Any infringement, or increased risk, risks those partners relocating and deciding to make different medium to longer-term investment decisions.

The proposed development site lies 1,000m out from our touchdown point on runway 06. The height of our touchdown point is 125' above mean sea level (AMSL). The height of the land at the crematorium is 120'AMSL.The 3 degree glide path passes over the top of this structure at 170' giving a clearance of 100'. This poses a safety risk, particularly during days of poor visibility or flying into the low lying sun. It should be noted that this is the clearance given for the actual glide path and not the cone that surrounds it (see attached glidepath diagram [2]). This is particularly relevant for IWM Duxford given the age of the aircraft flown here, and the inherent level of sophistication of the instruments as compared to modern aircraft.

The structure is completely inside the inner cordon of our Safeguarding Zone and its height threatens the safety of arriving aircraft in inclement or marginal weather. In addition, air shows at IWM Duxford frequently contain displays of current, fast military jet aircraft that have a pre-determined, predominantly fixed route. The chimney would be a collision hazard. In the future, if IWM Duxford were to move to an Instrument Flight Rules (IFR) recovery capability, or future legislation were to require licensed airfields to operate under IFR, all IWM Duxford air traffic would over-fly the proposed development at low level.

As you will be aware, the tragedy at Shoreham also had some direct impacts in terms of the running of air shows and there may be further guidance and instruction once the final findings of the investigation into the accident has been published. The CAA has asked us to consider the option to utilise our airspace to the West where the impact of traffic and built up areas is less onerous.

I note from the Non-Technical summary document that 'the new plant also requires a chimney that will be 25m high.' This is in contrast to the last paragraph of the Environmental Statement, by the same author, that:

> 'The final means of ensuring the effect from emissions will have an insignificant impact is the height of the chimney. The taller the chimney the more the gasses are dispersed on the wind and therefore the less impact they will have on ground level. The chimney height at 25m is guaranteed to ensure very good quality dispersion. The computer models used to confirm this always use worse case scenarios and assume the plant operates at the emission limit maximum for 100% of the time. This this robust and proven method will ensure that the plant cannot have a significant adverse impact.'

We believe that there is another chimney of some 15 metres in height, and though not ideal, is manageable with the correct briefing and advice given to visiting pilots. Introducing a subsequent chimney, more than 10 metres higher, introduces an unacceptable risk in our opinion.

Commercial

In addition to the dynamism created for our visitors by the presence of a working runway, IWM Duxford is host to a number of businesses which also rely on the continuity and safety of such a facility. Through this partnership working, IWM Duxford contributes some £30m+ per annum to the local and regional economy.

DCLG Planning Practice Guidance (paragraph: 012 Reference ID: 54-012- *'Transport evidence bases in plan making and decision taking'* states that:

> Aviation makes a significant contribution to economic growth across the country, including in relation to small and medium sized airports and airfields (aerodromes). An aerodrome will form part of a larger network. Local planning authorities should have regard to the extent to which an aerodrome contributes to connectivity outside the authority's own boundaries, working together with other authorities and Local Enterprise Partnerships as required by the National Planning Policy Framework. As well as the National Planning Policy Framework, local planning authorities should have regard to the Aviation Policy Framework, which sets out Government policy to allow aviation to continue making a significant contribution.

In addition, the Aviation Policy Framework (2013) considers the aviation sector as a major contributor to the local economy. In its section on maintaining a viable network of business and general aviation (186-191) it is noted that:

> 'the network of aerodromes of varying sizes, from airports in Northern Ireland, Scotland, Wales and regional airports in England to small business and general aviation (GA) airfields into which GA aircraft can readily gain access. While almost all of these are privately owned and operated, maintaining access to such a national network is vital to the continuing success of the sector.'

Any development which curtails our existing, lawful and unfettered aerodrome use would have serious commercial consequences for the museum, and its on-site flying partners, and may jeopardise the sustainability of the IWM Duxford in the long term and create a threat to a significant heritage asset in the eastern region. This is contrary to Policy CS34 (Protecting Surrounding Uses*)* of the *Cambridgeshire and Peterborough Minerals and Waste Development Plan* published in July 2011 which states clearly that waste management development will only be permitted where there would be no significant harm to existing land uses, visual intrusion or other amenities.

Comments to the proposed development in relation to the museum, the Conservation Area and its setting

The museum site is in a bowl with the land rising to the south and north. Important historic views to the open countryside beyond are afforded and the view across the airstrip to the south is said to be similar to the views attained from the site in the 1930s prior to the main fighter pens and other dispersal buildings being erected. The character of the landscape setting and the importance of the trees and other landscape features in and around the site forms part of its historic qualities.

In this, the period of the First World War Centenary, it should be noted that IWM consider its Duxford site to be the largest First World War exhibit in its collection This includes not only the buildings and their immediate setting but the surrounding vista and heritage landscape. The museum site is acclaimed as the 'finest and best preserved example of a fighter base representative of the period up to 1945 in Britain' (Source: English Heritage).

Our airfield is still in constant use, which is not the case on many other former RAF sites where open land has been colonised by new development. In recognition of the site's significant historical merit South Cambridgeshire District Council designated the whole of the museum site as a Conservation Area in 2007and recognises the importance of protecting its heritage setting in both the existing (Policy CH/11) and the proposed Local Plan. Paragraph 8.24 of the draft Local Plan states:

> 'Given its national significance, the District Council will give IWMD special consideration within the context of protecting the quality of the surrounding landscape in this sensitive site on the edge of the Cambridge Green Belt.'

Additionally, policy NH/2: *Protecting and Enhancing Landscape Character* in the same draft Local Plan states that development will only be permitted where it respects and retains, or enhances the local character and distinctiveness of the local landscape and of the individual National Character Area in which is it located. These principles are also reflected in policy CS33 (Protection of Landscape Character) of the *Cambridgeshire and Peterborough Minerals and Waste Development Plan* published in July 2011.We do not believe that the proposed increase in building size and the size of the chimney, as you approach the Conservation Area either from the air or on the ground, can be considered an enhancement of such an important and historic site.

I note that you drew the Conservation Area to the attention of the applicant in your pre-application advice letter dated 19 February 2015 and that Duxford Airfield was only 1km away to the north east (although this information was removed from your letter dated 3 March 2015 relating to the screening application). I am grateful to see that the Visual Impact Assessment document acknowledges the historic importance of this site and that the Conservation Area has been considered. Whilst I understand that the author of the report believes that the 'neither the site nor the chimney is visible when entering or leaving the Conservation Area' it is silent on the issue of the approach to the Conservation along surrounding roads or from the air. In addition there is the possible visibility of the chimney from our Control Tower which, of course, has an inherent elevated position over the airfield and is itself an historic building. I am unable to ascertain this with any certainty from the photographs provided but we believe and are very concerned that this could be detrimental to the historic vista and landscape and in direct opposition to draft policy NH/2.

Planning application comments

We have seen the pre-application advice dated 19 February 2015 and note that you advised the applicant to contact IWM to discuss the height of the chimney and any increase in emissions. For the record, the applicant did not contact us until June 2015. The Statement of Community Involvement the Applicants Planning Statement currently states:

Imperial War Museum Duxford

> 'As recommended the IWM at Duxford was contacted and discussions have been had with the Head of Airfield Operations . They clearly expressed concern over the height of the chimney; they confirmed that the site falls within their safety zone and would want to be formally consulted when the application is

> submitted. We also discussed the angle of the flight path and again IWM expressed concern that their flight path safety was not impinged upon. We have responded to these concerns in the Planning Statement....'

registered

There has only recently, since the application has been submitted, been an approach by the agent to engage in a meaningful dialogue. A meeting was held on 5 October 2015 with the applicant and their agent, Mr Wayne Taylor; Head of Airfield Services, Mrs Alison Inglis; Head of Projects, Cllr Mick Martin from SCDC and myself.

IWM Duxford was neither invited to nor informed of the three previous local meetings to discuss this application. The Statement of Community involvement document sets out the methodology for publicising the proposals to local residents and Parish Council via the open days. At no time was IWM approached to attend even though the meetings were in the month after the applicant had made contact with us. It is also noted that CCC were in attendance at these meetings and the communication plan presumably agreed with you. Whilst I appreciate, from your letter to Ms Heidi Allen MP dated 16 September 2015, that it is the applicant's responsibility to engage with the community, we had lodged an aerodrome safeguarding map, albeit with SCDC, and thus we were relying on the planning system to ensure that that we would be brought into the development consultation process at an early point by CCC or SCDC.

Therefore and for the sake of clarity we make the comments below on the content of the planning application:

a) In relation to Air Traffic Safety, the Applicant's Planning Statement currently states:

> It is our understanding, after having consulted with an air safety engineer, that the minimum flight angle a plane can approach an airfield is 3° above the horizontal from the closest point of the runway. Having assessed the height of the chimney and calculated the angle as 1.7° to the top of the chimney from the closest point on the runway it would appear that a 25m high chimney in the proposed location would not constitute a significant hazard to air traffic....'

Our (IWM's) response to this is: That whilst the chimney does "...not constitute a significant hazard with regard to modern aircraft..." it does create a hazard, nonetheless and a specific risk to historic aircraft. A pilot recovering to the airfield in bad weather, whilst attempting to adhere to the ideal approach path, may still deviate under duress (due to the meteorological conditions) and drift down towards the lower edges of the approach cone and clip any obstacle i.e. the chimney.

To emphasise the point made above we have seen, as a result of the unfortunate incident at Shoreham, that the Civil Aviation Authority is constantly reviewing and tightening up on its guidance and specifications; and along with IWM treats safety as being paramount.

At the meeting on 5 October 2015 meeting, the implication of the positioning of the chimney relevant to the runways was highlighted, using map diagrams, as the proposal is exactly on the centreline and only 1km away. There was also much discussion on the

thermal heat signature of the exhaust gases blowing downstream towards aircraft taking off (at their most vulnerable in relation to their engine) which could engulf them with hot/very warm air and which has the potential to rob the aircraft of significant power margins.

It was noted that IWM Duxford was not chosen, and modelled, as a site for pollution monitoring receptor. The Local Air Quality Management Technical Guidance published in 2009 which states, in section 1.29:

> The Regulations make clear that likely exceedances of the objectives should be assessed in relation to "*the quality of the air at locations which are situated outside of buildings or other natural or man-made structures, above or below ground, and where members of the public are regularly present*"

We are concerned, therefore, that that there are unknown pollution effects on the health of the IWM Duxford staff, partners, volunteers and visitors together with unknown detriment on our environment.

The applicant has agreed to:

- Ask their consulting engineers if the chimney height can be lowered without impacting on human health and ground level concentrations and, if so, would CCC and the EA agree that this is possible.
- Ask if a 'thermal image' of the effect of the heat from the chimney can be produced for wind speeds under 10 knots.
- Ask their air quality engineers to confirm why the IWM was left out of the critical receptor list in their report.

b) All of the drawings / photographs provide an incomplete and we believe present a misleading picture as they exclude the proximity of the airfield.

c) We also note on page 18 of the Planning Statement, in the section entitled 'Air Traffic Safety', that there is a reference to policy CS40 Airport Safeguarding in the *Cambridgeshire and Peterborough Minerals and Waste Development Plan* published in July 2011. Our reading of this policy is in relation to bird strike for officially safeguarded aerodromes and the sentence missing from the quotation in the Planning Statement is ' The preparation and implementation of an approved Bird Management Plan may be required.' Our concern is not related to bird strike but to hazards to air traffic from the development proposed.

The General Aviation Awareness Council published the '*General Aviation Sector-Led Guidance On Planning In Relation To Aerodromes For Local Planning Authorities, Aerodrome Owners And Aerodrome Operators*' in January 2015 [3]. It was issued to all relevant local authorities and provides an informative explanation for planning authorities and other interested parties with regard to the complexities of operating and airfield and the planning decisions which can affect one. I attach another copy for your information as this sets out many of the concerns experienced by ourselves and many other smaller airfields regarding development proposals and airfield protection.

In summary, IWM Duxford is Europe's premier aviation museum, is a world leader in aviation heritage conservation and hosts more air show days than anywhere else in Europe. Aircraft have been operating from Duxford airfield since 1918 and it is IWM's clear intention to continue to do so in as an unrestricted manner as possible in the future.

The presence and continuation of the current operation of IWM in the east of England, as part of our national heritage, is a significant benefit as a living, breathing dynamic museum; regional tourist attraction, world-class centre for the conservation and operation of historic aircraft, educational establishment and employer. The contribution to both the local economy and the tourist profile of the eastern region has been created by a large number of both public and private partnerships built up over the past three decades.

We wish to continue to grow and be part of the East of England's and the United Kingdom's success story, but we need support and some protection to enable us and our partners to achieve this. Simply, the current proposal puts this all at risk.

It would be unacceptable if our flying operations were curtailed or prevented, our function, as a national museum, was in any way obstructed or our historic setting compromised in any way. We will always make a robust challenge to any proposed development that created a risk to our existing, lawful and unfettered aerodrome use.

Should you require any further information or wish to visit the airfield please do not hesitate to contact me.

Yours sincerely

Graeme Etheridge
(Interim) Executive Director

CC.

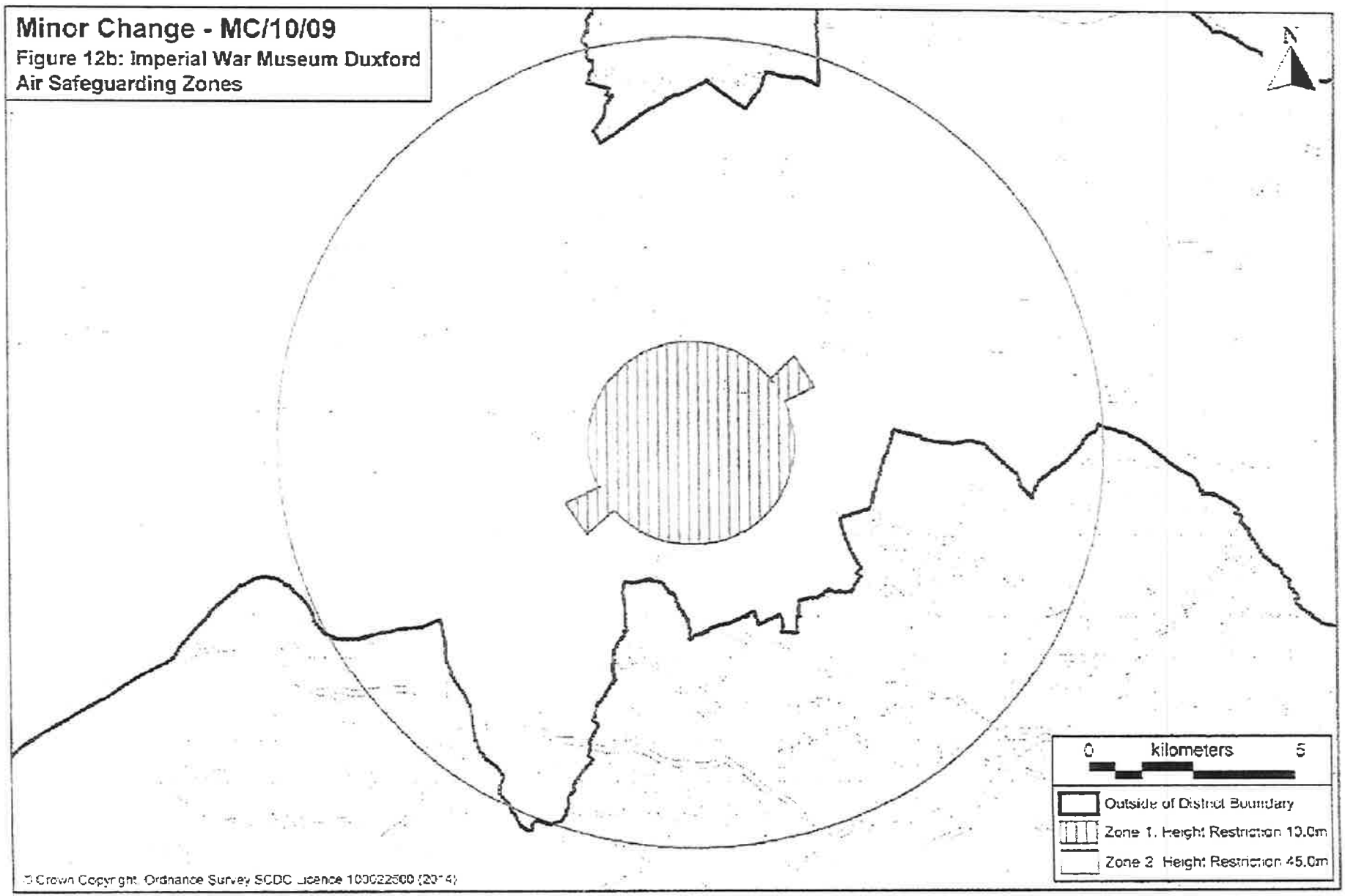
Heidi Allen, MP
Councillor Peter Topping, CCC
Councillor Mick Martin, SCDC
Jean Hunter, Chief Executive, South Cambridgeshire District Council
Thriplow Parish Council
Duxford Parish Council
Whittlesford Parish Council
Ickleton Parish Council

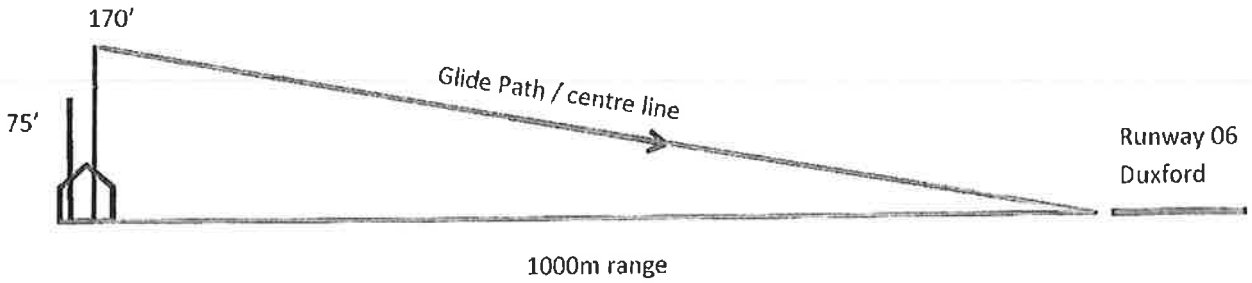
Encs:

1. Aerodrome Safeguarding map lodged with SCDC

2. IWM Duxford Aerodrome glide path diagram.

3. General Aviation Awareness Council '*General Aviation Sector-Led Guidance On Planning In Relation To Aerodromes For Local Planning Authorities, Aerodrome Owners And Aerodrome Operators*' (January 2015).


Minor Change - MC/10/09
Figure 12b: Imperial War Museum Duxford
Air Safeguarding Zones
N
0
kilometers
5
Outside of District Boundary
Zone 1. Height Restriction 10.0m
Zone 2 Height Restriction 45.0m
© Crown Copyright. Ordnance Survey SCDC Licence 100022500 (2014)


170'
75'
Glide Path / centre line
Runway 06
Duxford
1000m range

April 2015

GENERAL AVIATION SECTOR-LED GUIDANCE ON PLANNING IN RELATION TO AERODROMES FOR LOCAL PLANNING AUTHORITIES, AERODROME OWNERS AND AERODROME OPERATORS.

INTRODUCTION.

This document has been prepared by the General Aviation Awareness Council (GAAC) in response to a Government request for industry-agreed advice to assist decision makers in taking proportionate and appropriate account of the potential contribution of aerodromes both to the national economy and local communities. It also contains advice to aerodrome owners and managers to support them in understanding the protections and limitations of planning processes from their point of view.

The GAAC is a national body supported by over 60 organisations representing all areas of the general and light aviation movement, with a cumulative membership totalling over 40,000 people. It therefore has industry-wide authority to speak on matters related to airfields, take-off and landing sites used by its members.

The UK GA fleet is estimated to exceed 27,000 aircraft. These aircraft are flown by more than 32,000 pilots. When, on 22 March 2013, the Government published its Aviation Policy Framework (APF) it noted:

"The business and general aviation (GA) [sector] is important to the UK. The sector delivers vital services, including search and rescue, mail delivery, life-saving (organ) transport, law enforcement, aerial survey and environmental protection flights, as well as underpinning the training of future pilots, ground-based aircraft engineers and technicians. The sector also covers a wide range of activities, from corporate business jets and commercial helicopter operations through to recreational flying in small private aircraft, including gliders.

Research by York Aviation on the economic contribution of General Aviation was commissioned by the Government and published in March 2015. The research suggests that the total economic footprint of UK based GA activity in 2013 is some £3 billion, supporting over 38,000 jobs, 9,700 directly related to flying and the remainder to manufacturing. In Gross Value Added terms, this total includes;

- an economic footprint from GA flying operations of £1.1 billion;
- the export component of GA manufacturing of around £1.1 billion;
- additional wider benefits deriving from the use of business aviation of at least £0.8 billion.

There are also additional benefits to associated industries such as tourism.

However this research also indicates that while business aviation and air taxis have experienced growth in movements of around 7% since 2005, there has been a significant decline in aero club and private flying in this period. While there are some signs that this market is recovering from the recession, if GA flying operations could be reinvigorated to levels similar to those of 2005 then the economic value of the sector could increase to some £1.8 billion. Local authorities should be aware of these findings and of the contribution that general aviation can make to regional economies.

Maintaining access to a national network of general aviation airfields is vital to the continuing success of the general aviation industry and the provision of a viable nationwide transport infrastructure, as well as providing access to aviation for sport and leisure. It is noteworthy that ninety-six per cent of city pairs served by business aviation have no scheduled connection.

It should also be noted that different aspects of General Aviation operate from different types of aerodromes and airports. For example, at a larger regional airport a business jet may be regarded as a typical GA aircraft and often such regional airports do not encourage light aircraft or flying training. Smaller aerodromes, which cannot handle larger business aircraft, therefore remain equally important not only in terms of regional connectivity, but also in terms of local amenity, because they offer a greater diversity of aviation activity including flying training and access to sport aviation.

There is also a practical need in pilot training for a hierarchical airfield network to enable new pilots to be properly trained in different airfield environments, as well as allowing progressive training from basic to more complex and sophisticated aircraft.

Despite this clear importance, a number of airfields have closed and others have been recently threatened as a result of owners seeking to release the value of their land and local planning authorities giving priority to housing and other development. The General Aviation Challenge Panel Report of May 2014 stated: *"... local government and councils (for fiscal and housing delivery reasons) generally do not consider the potential economic value of aviation or unlicensed aerodromes. ... "*

It is important to properly assess the role of an aerodrome as part of a strategic network of aerodromes supporting General Aviation as a vital and sustainable part of the country's business and transportation infrastructure. This guidance document highlights areas of pressure and suggests how planners and aerodrome operators can help protect and develop a strategic network of aerodromes needed to support a potentially vibrant UK GA sector.

(It should be noted that, for the sake of simplicity, the terms airfield, aerodrome and flying site in this document, can be assumed to have the same meaning; flying sites smaller than international or regional airports, that support non-scheduled, general aviation operations.)

SUMMARY OF KEY AREAS AND RECOMMENDATIONS

1. CONNECTIVITY. THE NEED FOR A NATIONAL GA AIRFIELD INFRASTRUCTURE *(see also detail paragraphs 1-8)*
A network of GA aerodromes around the UK, provides vital connectivity for business travellers and acts as an important and cost-sustainable part of the national transport infrastructure. Despite this, many are threatened as a result of owners seeking to release the value of their land and local planning authorities prioritising housing and other development on the land they occupy. DCLG Planning Practice Guidance, (paragraph: 012 Reference ID: 54-012-20150313 at http://planningguidance.planningportal.gov.uk/blog/guidance/transport-evidence-bases-in-plan-making/transport-evidence-bases-in-plan-making-guidance/ recognises that aerodromes can confer connectivity benefits of more than local significance. Each site forms part of a larger national network and piecemeal closure without reference to their value as part of a strategic network can have far-reaching consequences.
2. BROWNFIELD SITE STATUS. *(See also detail paragraphs 9-17)*
The potential for aerodrome sites to be used for housing became more feasible following the deletion in 2003 of the footnote in PPG13, noting that airfields and hospital grounds should not be considered brownfield sites. The new definition of previously developed land included in the Glossary (Annex 2) of the NPPF makes no specific reference to airfields or flying sites. This has resulted in an increasing tendency for local planning authorities to treat airfields as brownfield sites for land redevelopment. Local Planning Authorities should be aware of the environmental credentials of the undeveloped areas of airfield sites and that GA flying sites could be considered as appropriate under NPPF allowance for the provision of "local transport infrastructure which can demonstrate a requirement for a Green Belt location".

3. AIRFIELDS AND RENEWABLE ENERGY *(See also detail paragraphs 18-29)*

Inappropriate applications for wind turbines in proximity to aerodromes, often inside safeguarded areas forcing objections on safety grounds, represent a significant cost and time issue for airfield operators. The cumulative effect of large numbers of unassociated wind turbine or solar array developments in a specific area can also make such concerns more acute.

The NPPF directs decision makers to the Overarching National Policy Statement for Energy Infrastructure (EN-1) which, at paragraph 5.4.2 states: *"It is essential that the safety of UK aerodromes, aircraft and airspace is not adversely affected by new energy infrastructure."*

Local Planning Authorities and aerodrome operators should work closely to understand the potential impact of renewable energy developments on aerodromes so that planners are aware of the risks to airfields and general aviation that such developments create and know which airfields in their areas could be affected and would need to be warned of any incoming application.

4. NOISE *(See also detail paragraphs 30-32)*

There is widespread concern that the introduction of new noise sensitive development (such as housing) in close proximity to long-established noise generating sites (such as flying sites) may in future force the latter to alter their operations or even close down due to new (and foreseen) complaints.

Planners need to be aware of the extent to which certain levels of noise may be unavoidable consequences of maintaining levels of commercial activity at aerodromes and that this may constrain options for nearby developments.

5. SAFEGUARDING AND THE PLANNING PROCESS *(See also detail paragraphs 33-39)*

There is a statutory obligation for Local Planning Authorities to refer planning applications in the vicinity of an aerodrome for CAA assessment for only 27 of the largest civilian aerodromes. All other civilian flying sites rely on voluntary or unofficial safeguarding. The response to this from local planning authorities has not always been consistent.

Local Planning Authorities and aerodrome operators should work closely to understand the potential impact of local developments near to aerodromes so that planners are aware of the risks to airfields and general aviation that such developments create and know which airfields in their areas could be affected and should be warned of any incoming application. Authorities should hold safeguarding maps and develop safeguarding procedures with operators wherever appropriate.

6. AIRFIELD VIABILITY, CLOSURES AND ASSET DISPOSAL *(Detail paragraphs 40-48)*

For the promotion of local jobs and growth it is important to secure the on-going future and potential of GA aerodromes as a local and national resource. Planning authorities should be alert to the extent to which the rapid removal and sale of assets at an aerodrome could adversely affect the potential for bringing it back into operation.

Government guidance now reminds planning authorities that a working or former aerodrome could be put forward for consideration proposed as a site for mixed use development (NPPF paragraph 17) that includes continuing, adapting or restoring aviation services in addition to other uses.

Government guidance also requires planning authorities to have regard to the extent to which an aerodrome contributes to connectivity outside the authority's own boundaries, working together with other authorities and Local Enterprise Partnerships as required by the National Planning Policy Framework.

Any change of use from its role as an airfield should only be permitted after the planning authority has fully considered the extent to which the aerodrome has contributed to connectivity outside its own boundaries. In addition options should be explored such as mixed use development, allowing aviation to be continued, developed or adapted alongside other land uses.

Planning authorities should consider encouraging owners of airports who intend that there should be a final closure and cessation of business to complete full and proper consultation, operate a cooling off or review period in which demolition, asset sale or other disposal of key airport equipment do not take place.

CONCLUSION

Despite the inevitable pressures from alternative requirements for land use and other commercial factors, General Aviation airfield operators have proved resilient, adaptable and self-sustaining in, largely without subsidy, maintaining an important element of transportation infrastructure. Maintaining access to a national network of general aviation airfields is vital to the continuing success of both the general aviation industry and the provision of a viable nationwide business, leisure and transport resource.

Pressures on land uses are high and the industry has long accepted the need to be proactive in engaging with local planners and the local community, to identify and promote the value of the activities undertaken on their sites, as well as mitigating environmental impacts. However it is clear that many Local Planning Authorities do not fully recognise the General Aviation sector's importance to either their local community or wider national prosperity.

Aviation is a dynamic sector of Britain's social and economic base, but for the industry to continue to play its role it requires both the safeguarding of the current aerodrome infrastructure and, via the proactive involvement of Local Planning Authorities in line with National Policy Planning Framework, the creation of long-term confidence to unlock investment to create growth in activity, with attractive and modern facilities for its users.

General Aviation Awareness Council
April 2015

NOTES:
Additional more detailed information on each of these key areas is attached in a following appendix.

Further information or advice is available on request from:

Stephen Slater
Vice-Chairman
General Aviation Awareness Council.

planning@gaac.org.uk

SECTOR-LED AIRFIELD PLANNING GUIDANCE IN MORE DETAIL:

CONNECTIVITY: THE NEED FOR A NATIONAL GA AIRFIELD INFRASTRUCTURE

1. While Commercial Air Transport or airline operations are focussed on scheduled flights from 25 airports around the UK, GAAC research indicates that GA in the UK uses more than 120 aerodromes licensed by the Civil Aviation Authority for non-scheduled passenger carrying use and between 350 and 500 unlicensed flying sites. These can range from former military aerodromes with mile-long runways, to smaller airfields with grass runways and privately owned 'farm strips' and helipads. Almost all these airfields are privately owned and operated, gain no subsidy and directly contribute to their local communities in rates and the generation of salaries.

2. This network of GA aerodromes around the UK provides vital connectivity for business travellers and acts as an important part of the national transport infrastructure, providing economic benefit to the country as a whole, providing 'point to point' access, allowing passengers and cargoes to be delivered closer to their ultimate destination, saving time and cost. They also provide important infrastructure and support for activities such as police and pollution patrols, medical flights, aerial surveys and civil search and rescue operations. Many flights are also made by private individuals who fly their own aircraft or a hired aircraft to these aerodromes for business or social purposes.

3. Despite protection in the National Planning Policy Framework (paragraph 33) and the Government Aviation Policy Framework, a number of airfields have closed and others have been threatened as a result of owners seeking to release the value of their land and local planning authorities prioritising housing and other development on the land they occupy.

4. In addition the refusal of planning permissions for the updating of essential aerodrome facilities, or the imposition of unreasonably restrictive limitations on acceptable uses can act as a potential blockage to ancillary development necessary to provide future financial viability.

5. Disruption of this national network of smaller, local airfields by piecemeal closure without reference to their value as part of a strategic network can have far-reaching consequences. A recent temporary closure of Blackpool airport in late 2014, had known effects on regular aircraft movements as far afield as Buckinghamshire, Gloucestershire, Hampshire and Oxfordshire as, without a convenient destination for planned business and social flights to the Fylde area, the flights were merely cancelled, with those involved being forced to resort to less efficient, more time-consuming alternative means of travel.

6. DCLG Planning Practice Guidance (paragraph: 012 Reference ID: 54-012-20150313 at http://planningguidance.planningportal.gov.uk/blog/guidance/transport-evidence-bases-in-plan-making/transport-evidence-bases-in-plan-making-guidance/) recognises that aerodromes can confer connectivity benefits of more than local significance. Each site forms part of a larger national network and piecemeal closure without reference to their value as part of a strategic network can have far-reaching consequences.

7. The Government's March 2015 General Aviation Strategy notes that opposition to aerodrome development is often high within local communities, especially where the potential benefits of a GA airfield to the area may be poorly understood, while the potential adverse effects such as noise are

publicised and more readily appreciated. The recent GA research recommends that the Government should continue to encourage planning authorities to ensure that they take into account in their Local Plans and in all planning decisions the economic and employment roles the local airfields play.

8. Local Planning Authorities need to work collaboratively, especially as GA is not a "local" issue and each site forms part of a larger national network. Planning strategically across local boundaries is reflected in paragraphs 178 to 181 of the NPPF (and the Localism Act), although the emphasis there is on strategic priorities.

BROWNFIELD SITE STATUS.

9. Possibly the single biggest threat to GA aerodromes in UK today has been developers' interest in aerodromes as potential housing locations and pressure on aerodrome owners to sell up. The past year has seen an acceleration of the already worrying trend of aerodromes closing or coming under threat. One factor has been the deletion in 2003 of the footnote in PPG13, noting that airfields and hospital grounds should not be considered brownfield sites.

10. The original PPG statement had excluded airfields from consideration and an assurance was given at the time to GAAC President, Lord Rotherwick by Baroness Andrews and in the lower house by Yvette Cooper, that this 'oversight' would be remedied. It has however been overtaken by the new planning system, with the result that local planning authorities now treat airfields as brownfield sites.

11. While PPG13 has now been superceded by the NPPF, the GA Challenge Panel's 2013 report stated that: "*... the allocation of these unlicensed sites as brown field, and their inclusion in the strategic housing land availability policy means that when applications for re-development are submitted to the local planning authority there is no planning policy to support their retention.*"

12. The new definition of previously developed land included in the Glossary (Annex 2) of the NPPF makes no specific reference to airfields or flying site, but states: "*Land which is or was occupied by a permanent structure, including the curtilage of the developed land (although it should not be assumed that the whole of the curtilage should be developed) and any associated infrastructure .....*"

13. It is noteworthy that the curtilage of many airfields is recognised as an important 'open green space' by many Local Planning Authorities and there is increasing evidence from local nature and environmental surveys that airfields are increasingly important as a low-insecticide, low-herbicide, sanctuary for plants, insects and associated wildlife.

14. Future developments at airfields are also pressurised by the application of Green Belt policy without full consideration of the openness of the greater part of an aerodrome site. York Aviation in their research published in March 2015 noted that they were aware of many GA aerodromes that have experienced protracted difficulties with the planning system, with local planning authorities according little or no weight to the need for modernisation, followed by lengthy and costly appeal processes often with a negative outcome. This presents a high regulatory burden for smaller aerodromes, which are often small businesses operating on small profit margins.

15. For example, Elvington Airfield near York was refused planning permission on appeal for hangar development necessary to sustain on-going aviation activity due to concerns about the interaction with a nearby Special Protection Area (SPA) and Redhill Aerodrome in Surrey has been refused permission, on the grounds largely of in principle harm to the Green Belt, for an all-weather runway that was necessary to enable it to handle more modern aircraft, without which its long term viability is at risk. This risk was not considered sufficient to constitute very special circumstances sufficient to overcome Green Belt objections.

16. Other airfield locations, such as at Bourn in Cambridgeshire, Kemble in Gloucestershire and Wellesbourne near Stratford-upon-Avon, are threatened by future potential changes of use of their sites for housing development and the consequent loss of the aerodromes.

17. Local Planning Authorities should be aware of the environmental credentials of the undeveloped areas of airfield sites and should be aware that GA flying sites could be considered appropriate under NPPF allowance for the provision of "local transport infrastructure which can demonstrate a requirement for a Green Belt location"..

AIRFIELDS AND RENEWABLE ENERGY

18. Given the heavy emphasis on sustainable development, which is at the core of the National Planning Policy Framework, it is inevitable that there is a policy presumption in favour of all forms of renewable energy. A footnote 17 at page 23 of the NPPF specifically directs decision makers to the Overarching National Policy Statement for Energy Infrastructure (EN-1) which, at paragraph 5.4.2 states: *"It is essential that the safety of UK aerodromes, aircraft and airspace is not adversely affected by new energy infrastructure."*

19. While in all cases, the consideration and approval of the windfarm application is a matter for the relevant Local Planning Authority, the Civil Aviation Authority has produced detailed guidance covering the issue of aviation and windfarms in its CAP 764 document. This covers both the statutorily protected sites as well as those regarded as non-statutory.

20. This is a valid and important consideration, as a number of developers have made inappropriate applications for wind turbines in close proximity to aerodromes, often inside safeguarded areas.

21. In addition to the obvious risk of collision, there are other safety factors involved such as the risk of distraction, blade-light flicker and the risk of downwind vortex turbulence from the fast-moving turbine blade tips, which according to industry-agreed research, may extend downwind for up to 16 times the diameter of the turbine blades. For larger airfields, potential disruption of radar coverage by blade interference is also a significant issue.

22. Statutorily-protected sites: Large airports, NATS and the MoD are given statutory protection from development. Therefore any developer must consult them and ensure that they are content for the proposed development to proceed.

23. Non-statutorily protected sites: For smaller airports and aerodromes, there is no statutory safeguarding. However, Section 3.2 of CAP 764 states:

24. *"Those aerodromes and CNS sites that are not safeguarded by statutory process can be unofficially safeguarded by agreeing protection measures with their Local Planning Authority."(See also section 5 of this document; Safeguarding and the Planning Process).*

25. Sections 1.10 and 1.11 of CAP 764 state: *"Operators of licensed aerodromes which are not officially safeguarded and operators of unlicensed aerodromes and sites for other aviation activities (for example, gliding or parachuting) should take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities. Local planning authorities are asked to respond sympathetically to requests for non-official safeguarding."*

26. *"The safeguarding of unlicensed aerodromes is therefore a matter of discussion between the operator and the Local Planning Authority and the need for constructive liaison from an early stage is evident."*

27. Objecting to inappropriate development represents a significant cost and time issue for airfield operators. There is also some evidence that owners and operators of aerodromes are not always advised that an application has been made and, as a result, have missed out on the opportunity to comment.

28. Recent requests to develop solar power arrays on and near aerodromes may also potentially affect airfield safety by their erosion of safe landing areas in cases of emergency. As with wind turbines, there are concerns that the cumulative effect of large numbers of unassociated developments may make such concerns even more acute.

29. Local planning authorities and aerodrome operators should work closely to understand that potential impact of renewable energy developments on aerodromes so that planners are aware of the risks to airfields and general aviation that such developments create and know what airfields in their areas could be affected and would not to be warned of any incoming application.

NOISE

30. Housing land allocation is driving development in areas of ever closer proximity to airfield boundaries. While existing safeguarding rules adequately regulate safety issues such as vertical intrusion and safety zones, there is an increasing concern that the introduction of new noise sensitive development (such as housing) in close proximity to long-established noise generating sites (such as flying sites) may in future force the latter to alter their operations or even close down due to new (and foreseen) complaints.

31. Previous planning advice has traditionally been focused primarily upon the introduction of a noise-generating activity upon existing development. The NPPF has partially addressed this with a bullet point in paragraph 123, which states that: "*Planning policies and decisions should aim to: Recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established.*"

32. Planners need to be aware of the extent to which certain levels of noise may be unavoidable consequences of maintaining levels of commercial activity at aerodromes and that this may constrain options for nearby developments.

SAFEGUARDING AND THE PLANNING PROCESS

33. The safeguarding process is a key mechanism for dialogue between local planning authorities, aerodrome operators and the Civil Aviation Authority. This is enshrined in CAA document CAP 738 *Safeguarding of Aerodromes.*

34. There is a statutory obligation for LPAs to refer planning applications in the vicinity of an aerodrome for CAA assessment for military flying sites and only 27 of the largest civilian aerodromes. For the remainder, the CAA advises that the LPA should give due consideration to the expertise of the aerodrome operator. This is in line with government policy (ODPM circular 1/2003 (and Scottish Executive Planning Circular 2/2003)

35. The lodging of voluntary safeguarding information with relevant local planning authorities is mandatory for operators of flying sites licensed for the carriage of paid passengers (CAA CAP168, Licensed Aerodromes) and guidelines for operations at unlicensed flying sites (CAA CAP 793, Safety at Unlicensed Aerodromes) recommends that voluntary or unofficial safeguarding agreements are made with the appropriate LPAs.

36. Safeguarding in planning law means to safeguard an established land use. In reference to aviation it is achieved by a process of checking proposed developments so as to:

- Protect the blocks of air through which aircraft fly, by preventing penetration of surfaces created to identify their lower limits.
- Avoid any increase in the risk to aircraft of a birdstrike by preventing development such as rubbish tips which may increase hazardous bird species in the vicinity of an airfield.
- Protect the integrity of radar and other electronic aids to air navigation, by preventing reflections of the radio signals involved.
- Protect visual aids, such as approach and runway lighting, by preventing them from being obscured, or prevent the installation of other lights which could be confused for them.

37. It is noteworthy that the response from local planning authorities is not consistent. Sometimes authorities resist accepting unofficial safeguarding. For example an application was rejected for a safeguarding zone around an aerodrome in the south-west of England, the council instead offering a "constraint maps" agreement, and other local authorities have also resisted becoming involved due to the perceived bureaucracy required.

38. Even if a local authority accepts a safeguarding map, experience demonstrates they don't always adhere to it and they do not necessarily notify the aerodrome operator of applications for development. For example Denham Aerodrome's owners discovered in 2008, that during an office move its local council had lost the safeguarding maps that had been deposited with them. A further recent case was a failure to consult with an aerodrome operator, only highlighted when a County Council shortlisted a site close to the end of a runway for a waste incineration plant with a tall chimney.

39. Local planning authorities and aerodrome operators should work more closely to help planning authorities better understand the potential impact of local developments near to aerodromes so that planners are aware of the risks to airfields and general aviation that such developments create, and to know what airfields are in their areas.

AIRFIELD VIABILITY, CLOSURE, ASSET-DISPOSAL

40. Despite the inevitable pressures from alternative requirements for land use and other commercial factors, General Aviation airfield operators have proved resilient, adaptable and self-sustaining in, largely without subsidy, maintaining an important element of transportation infrastructure. The recent York Aviation report for the DfT focuses on the financial, social and economic benefits that GA airfields bring to the country and on suggestions of means of developing this further.

41. It is important that the planning sector helps rather than hinders this development process, by ensuring that proposed changes of use do not negatively affect the viability of the aerodrome operation, and that proposed necessary developments are enabled to secure the on-going future and potential of the aerodrome as a local and national resource.

42. Recent closures followed by the rapid dismantling of infrastructure at airports including Manston International, Sheffield Business Airport and Plymouth have highlighted these concerns. In contrast, when airport management companies at Coventry, Exeter and Blackpool were respectively forced to cease operations on financial grounds, a more proactive approach has allowed each of these airfields to reopen under new management and continue to serve their respective communities.

43. In the event of an aerodrome's closure, there is a statutory requirement (s35 of the Civil Aviation Act 1982) that currently applies to a CAA-designated aerodrome (compulsory safeguarding) that the person having the management of the aerodrome shall provide *"adequate facilities for consultation with respect to any matter concerning the management or administration of the aerodrome which affects the interests" of:*
    i. users of the aerodrome;
    ii. any local authority in whose area the aerodrome is situated; and
    iii. any other organisation representing the interests of persons concerned with the locality in which the aerodrome is situated."

44. Guidance published for Airport Consultative Committees in April 2014 states that the Government recommends representation of these statutory consultees through a consultative committee formed for this purpose. However this guidance does not specifically mention consulting on the closure of an airport or airfield.

45. Planning authorities should be alert to the extent to which the rapid removal and sale of assets at an aerodrome could adversely affect the potential for bringing it back into operation. Government guidance now reminds planning authorities that a working or former aerodrome could be put forward for consideration proposed as a site for mixed use development (NPPF paragraph 17) that includes continuing, adapting or restoring aviation services in addition to other uses.

46. Government guidance also requires planning authorities to have regard to the extent to which an aerodrome contributes to connectivity outside the authority's own boundaries, working together with other authorities and Local Enterprise Partnerships as required by the National Planning Policy Framework.

47. Any change of use from its role as an airfield should only be permitted after the planning authority has fully considered the extent to which the aerodrome has contributed to connectivity outside its own boundaries. In addition options should be explored such as mixed use development, allowing aviation to be continued, developed or adapted alongside other land uses.

48. Planning authorities should consider encouraging owners of airports who intend that there should be a final closure and cessation of business to complete full and proper consultation, and implement a cooling off or review period in which demolition, asset sale or other disposal of key airport equipment does not take place.

ENDS

Further information or advice is available from:

Stephen Slater
Vice-Chairman
General Aviation Awareness Council.

planning@gaac.org.uk

T 01223 499 379
F 01223 835 750
E getheridge@iwm.org.uk

Ms Helen Wass
Cambridgeshire County Council
Economy, Transport & Environment
Strategy & Development
Growth & Economy
Box CC1315
Shire Hall
Cambridge
CB3 0AP

15th January 2016

Dear Ms Wass

Novus Environmental, Novus House, Thriplow, Royston, SG8 7RR
Ref: S/0008/15/CW.

I refer to our letter dated 8 October 2015 and your letter dated 5 January 2016 regarding the revised above planning application. I am writing to register our continuing objections to the proposed development. There appears to be no change to the proposal, and the response to our concerns has not in our view been addressed – therefore our objections still stand. (Please refer to original submission).

As you know from our submission on 8 October 2015 we have grave concerns that allowing the current proposals to go ahead will put our airfield operations at risk which could, ultimately, have a negative impact on the museum as an important visitor and heritage attraction, the important aerial vistas and our numerous onsite partners and their businesses. The continued operation of the airfield as a live and dynamic business is vital to making IWM Duxford unique.

We note the ***Appraisal Of Potential Effects On The Setting Of Conservation Areas*** report from Jon Etchells. Our comments in relation to the approach to our Conservation Area and its setting remain unchanged.

The revised information regarding the ***Air Quality Assessment*** still gives us cause for concern due to inconsistencies in their report. Some of the hazards still have not been addressed properly. Some polluting causes and effects were sourced from sites 45Km away. Data was broad and non-specific.
http://planning.cambridgeshire.gov.uk/swift/MediaTemp/39543-1950952966.pdf

The revised information regarding the ***Airport Safeguarding Report*** has been heavily modified since we sighted the original draft. Risks have been 'watered down', others have been removed completely. The proposed chimney would infringe a future Type A designated area (were we to pursue this type of operation in future) and this fact has been formally confirmed in writing by Novus and our own aviation surveyor. (Copies of which you already have).
http://planning.cambridgeshire.gov.uk/swift/MediaTemp/39543-1950954443.pdf

The revised information regarding the ***Air Quality Objection response.*** Inconsistencies with some of their data remain. Duxford will still be exposed.
http://planning.cambridgeshire.gov.uk/swift/MediaTemp/39543-1950954444.pdf

The revised information regarding the ***Hot gas exhaust effect on aircraft*** leads us to believe that their understanding of vintage aircraft flying and flying in general is limited. The survey was limited in its catchment area and data was compiled from a site 30Km away.
http://planning.cambridgeshire.gov.uk/swift/MediaTemp/39543-1950954447.pdf

Applicants Summary
http://planning.cambridgeshire.gov.uk/swift/MediaTemp/39543-1950954449.pdf
We believe that this is biased in some cases without foundation in favour of the application. Please note the statement made by Novus when describing aviation standards at IWM Duxford is both derogatory and unprofessional. The IWM Duxford aerodrome is audited annually and consistently meets inspection and scrutiny standards laid down by the Civil Aviation Authority, UK, together with those of our own independent Flight Safety Committee.

To reiterate the summary from our letter of 8 October 2015, IWM Duxford is Europe's premier aviation museum, is a world leader in aviation heritage conservation and hosts more air show days than anywhere else in Europe. Aircraft have been operating from Duxford airfield since 1918 and it is IWM's clear intention to continue to do so in as an unrestricted manner as possible in the future.

The presence and continuation of the current operation of IWM in the east of England, as part of our national heritage, is a significant benefit as a living, breathing dynamic museum; regional tourist attraction, world-class centre for the conservation and operation of historic aircraft, educational establishment and employer. The contribution to both the local economy and the tourist profile of the eastern region has been created by a large number of both public and private partnerships built up over the past three decades.

We wish to continue to grow and be part of the East of England's and the United Kingdom's success story, but we need support and some protection to enable us and our partners to achieve this. Simply, the current proposal puts this all at risk, along with the jobs and tourism our operations support towards our future aspirations.

It would be unacceptable if our flying operations, function as a national museum or our historic setting was compromised in any way. We will always make a robust challenge to any proposed development that created a risk to our existing, lawful and unfettered aerodrome use.

Above all else and in light of the facts in your possession (e-mails from Novus and our surveyor) that a future Type A would be breached – approval of this application would knowingly increase the risk of an accident for the flying partners operating out of Duxford.

Should you require any further information please do not hesitate to contact me.

Yours sincerely

Graeme Etheridge
(Interim) Executive Director

CC.

Heidi Allen, MP
Councillor Peter Topping, CCC
Councillor Mick Martin, SCDC
Jean Hunter, Chief Executive, South Cambridgeshire District Council
Thriplow Parish Council
Duxford Parish Council
Whittlesford Parish Council
Ickleton Parish Council
Mr Rick Peacock Edwards, Chair, Duxford Flight Safety Committee.

Original signed.

Wass Helen

From: Alison Inglis <aminglis@iwm.org.uk>
Sent: 11 February 2016 12:52
To: Wass Helen
Subject: RE: Planning application at Vetspeed
Attachments: RAF Duxford 1918..pdf

Helen

Thank you for the additional information. Our comments are as follows:

- Regarding section 1.1.3, the applicant was given but did not take up the opportunity to take photos from the Control Tower which would have afforded a different and elevated historical viewpoint to the landscape.

- The report focuses on the existing chimneys and the new one will be considerably taller. It would therefore follow that it will be more visible and prominent in the landscape. It would have been useful to have seen some modelling illustrations within this report.

- Regarding section 2.2.7, it should be noted that our visitors, particularly on air show days, use powerful zoom lenses to get the best photographs of the aircraft in the air and the historic setting. Their experience is likely to be adversely affected by a new chimney.

- There was no representation of the vista from the perspective of the thousands of visiting pilots who fly into our historic airfield.

- The A505 is an integral element of how this particular Conservation Area is read as the site was built with the road running through it for the purpose of separating the domestic and technical sides of RAF Duxford as can be seen in the attached photo from 1918. We are therefore aware of all the buildings and structure along its route and the approach to the Conservation Area.

- The present landscaping, with the boundaries of tall trees and hedges, may change in the future as part of the master plan which is being prepared for the site. They cannot be relied upon to always provide the screening that has been mentioned in the report.

If you need any additional information please do contact me.

Alison Inglis
Head of Projects
IWM Duxford
Cambridgeshire
CB22 4QR

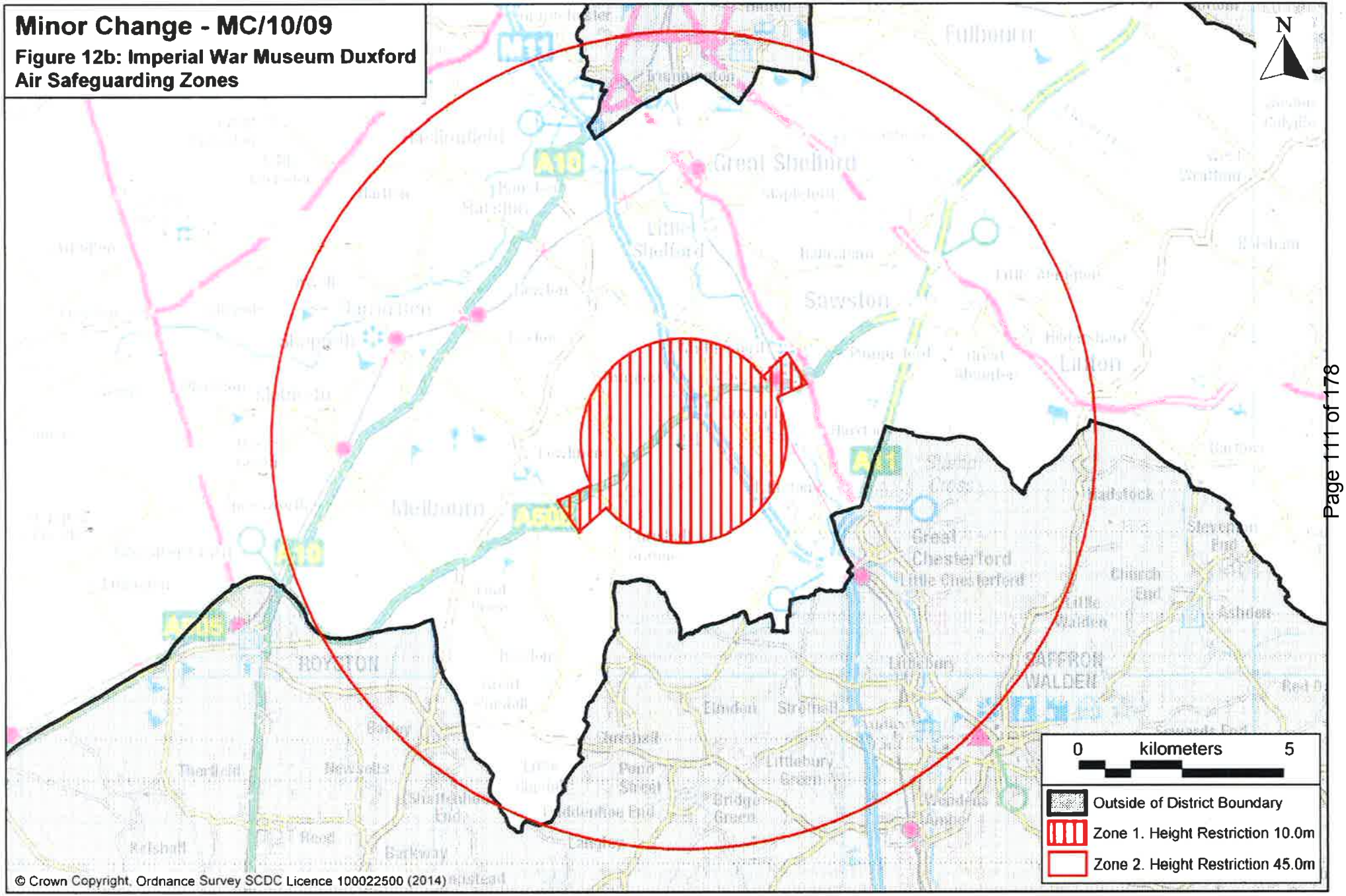
From: Wass Helen [mailto:Helen.Wass@cambridgeshire.gov.uk]
Sent: 29 January 2016 08:44
To: Alison Inglis
Subject: Planning application at Vetspeed

Alison

The attached was submitted in response to a request from the SCDC heritage officer for more information on the conservation area impact after we received your letter of 15 January. If the IWM has any further comments I'll be happy to hear from you by 12 February.

Helen

Helen Wass
Development Management Officer
Postal address: Box SH 1315, Shire Hall, Cambridge, CB3 0AP
Tel 01223 715522


Minor Change - MC/10/09
Figure 12b: Imperial War Museum Duxford
Air Safeguarding Zones
N
0
kilometers
5
Outside of District Boundary
Zone 1. Height Restriction 10.0m
Zone 2. Height Restriction 45.0m
© Crown Copyright. Ordnance Survey SCDC Licence 100022500 (2014)

Technical Report for Cambridgeshire County Council -

in response to a planning application submitted by the developer, Novus Environmental, Royston, Ref: S/008/15/CW

July 2016

Graeme Etheridge CPFA

Accountable Manager for Duxford Aerodrome

Executive Director, IWM

Contents

1. Introduction

This report assesses the potential safety implications for aircraft operations at Duxford Aerodrome as the result of a proposed development, including siting of a chimney stack, immediately to the south-west of the runways. The assessment has been carried out in response to the request made by Cambridgeshire County Council Planning Committee at their meeting of 12 May 2016 with regard to the planning application submitted by the developer, Novus Environmental, Royston, Ref: S/008/15/CW.

The report provides technical evidence as to why the chimney would pose *a significant hazard* (to quote the terminology of Mineral and Waste Core Strategy Policy CS40) and in particular provides evidence (with appropriate distances, speeds, angles, types of aircraft and the implications of engine power loss or other incidents, including those weather-related) showing how safety would be affected from a factual perspective.

It is acknowledged that the height of the proposed chimney obstacle is below the statutory clearance surface currently required by the UK's Civil Aviation Authority for visual flight operations. However, one of our contentions is that regulatory requirements prescribe minimum clearances, and that these clearances would have been based on a sample of operating manuals/data for aircraft – and as such may not be entirely relevant to the realities of operating historic and vintage aircraft (many of which were manufactured without the production of operating manuals as we or the CAA would recognise them) within the context and environs of Duxford Aerodrome.

As requested (per Emma Fitch's email of 13 May 2016) this report also refers to the significance of the grass runway for historic aircraft operation, as distinct from the asphalt runway (Section 3). The report also addresses the assessment and importantly the conclusions made by Alan Stratford and Associates Ltd (detailed within the Planning Committee report) and how these conclusions differ from the experience-based opinion of long-time Duxford aircraft operators (Appendix A).

This report has been reviewed and endorsed by the Chairman of the General Aviation Safety Council; and Chairman of Duxford Aerodrome's Independent Flight Safety Committee.

2. Background and Definitions

This report focuses on why the construction of a 25m (82.9 ft.) chimney would introduce a significant hazard to flying into and out of Duxford Aerodrome.

Notwithstanding this obvious headline item, we request that this report should also be considered in the context of many previous successive (and entirely lawful) Vetspeed/Novus planning applications. Collectively, the perhaps unforeseen effect has been the incremental creation of what is even today something of a hazard to air and road traffic, not to mention a site substantially and negatively impacting the rural vista a non-industrial landscape (with its' historic vistas, both aerial and from the aerodrome).

Figure 1 - Royal Air Force (RAF) Duxford - 1918

The Duxford Aerodrome has been in use since 1918 and has seen and played a significant part in our country's history. Basing of the first operational Spitfire squadron and then key involvement in the Battle of Britain will, we hope, be remembered for all time. Legendary figures such as Douglas Bader and Frank Whittle flew and trained at Duxford. Duxford's Aerodrome, its buildings and place in history is formally recognised by Historic England; the venue attracts over 300,000 national and international visitors a year, which along with the work of our onsite partners supports over 250 jobs within the local economy. Our research shows clearly that our unique selling point is that not only does IWM Duxford have world class collections and accompanying history, but importantly that it is still an operational airfield with living history being made on a daily basis. Duxford has been in operation for 98 years… so far. IWM and its partners have together built a global

reputation as a, if not the, centre of excellence for restoring and flying historic vintage aircraft.

The last point is a key issue and is the driver for our concerns with regard to the safety implications of the Vetspeed site, and in particular the construction of a 25m (82.9 ft.) chimney. Additionally there are issues of uncertain extent with regard to the heat and pollutant content of the chimney emissions.

Duxford has achieved its status as a centre of excellence for vintage aviation and display flying in no small part because it offers a well-managed and safe operating environment within currently manageable restrictions. Flying can be variously for the purposes of; controlled testing to approve newly-restored aircraft, training to develop the necessary old aircraft handling skills in new generations of pilots, retention of existing pilot proficiency, public pleasure whether as participant or onlooker, or for film work.

This combination of structured operation in a dedicated environment has fostered immense developments in practical flying experience and engineering capability at Duxford, and widespread recognition of this by the historic and vintage aviation sector. For such reasons our partner ARC Ltd has recently secured the prestigious contract to refurbish the Royal Air Force Battle of Britain Memorial Flight (BBMF) WWII Lancaster bomber. ARC Ltd are world leaders in restoration and maintenance of Spitfires and Hurricanes, and are operators of their own Bristol Blenheim.

de Havilland Support Ltd is the custodian of original de Havilland Aircraft Company design data and the source of advice worldwide for all topics pertinent to aircraft such as the Tiger Moth, Dragon Rapide, Chipmunk and Scottish Aviation Bulldog.

The Fighter Collection own and operate one of the world's premier private collections of 'Warbirds' (former military fighter and bomber aircraft) and deliver the renowned 'Flying Legends' air show every July at Duxford. Visiting vintage aircraft and public visitors alike are attracted from all over the world.

These operations are subject to CAA oversight and to external validation, not least by Insurers. The test flying of any aircraft is tightly managed, and involves planning for the eventuality of a partial or complete engine failure, or indeed other shortcomings which may exist until diagnosed and corrected. During the testing phase the ability of an aircraft/pilot combination to manoeuvre effectively, or to deal with unexpected external factors such as air turbulence or sudden changes in temperature, may well be less than when more operating experience has been gained. Despite all precautions the reality of Human Factors experience is that it is at such times of stress that an 'obvious' issue, such as an obstruction, may be overlooked and lead to an avoidable accident.

Definitions

Duxford Aerodrome constantly reviews its risk management approach, both for general day to day operations and airshows. Given reference to the term 'significant hazard' we look here to quantify that term. In terms of 'significant' we define this (in line with standard English) as 'sufficiently great or important to be worthy of attention; noteworthy'.

In terms of the word 'hazard' we define this (both in terms of the standard English of the noun; and in line with the Health & Safety Executive's definition) as 'a potential source of danger: a safety hazard' and; 'a hazard is something (e.g. an object, a property of a substance, a phenomenon or an activity) that can cause or lead to adverse effects'.

This report looks **therefore as to whether the proposed introduction of a new 25m (82.9ft) chimney represents a new 'significant hazard'** using the definition set out: 'a potential source of danger'.

In addition Appendix C shows the Civil Aviation Authority's definitions with relation to 'hazards', included in CAA Safety Management Systems (SMS) Guidance for Organisations CAP795 – CAA February 2015. Making an informed assessment, any incident of an aircraft clipping or flying into a 82.9ft (25m) metal chimney stack is likely to lead to either a "Catastrophic consequence (i.e. Results in an accident, death or equipment destroyed); and/or a Hazardous consequence (i.e. Serious injury or major equipment damage).

Apart from the risk of an aircraft simply flying directly into the proposed chimney stack because of its location, weather conditions and pilot factors - given that on average there is approximately one 'forced landing' in the surrounding area per annum (see section 4 'Safety Scenarios' for some causes/contributory factors) we would assert that the likelihood of occurrence would be either "Occasional (i.e. Likely to occur sometimes (has occurred infrequently); and/or Remote (i.e. Unlikely to occur but possible (has occurred rarely), with reference to CAA definitions.

Applying any combination of these, would result in the risk being deemed 'unacceptable' using the Civil Aviation Authority's hazard/risk matrix as at Appendix C.

3. Airfield Operations in Context

Duxford Aerodrome sees in excess of 25,000 aircraft movements per year; with an approximate 50/50 split between use of the grass runway (06L/24R) and the asphalt runway (06R/24L). It is worth noting that many historic/vintage aircraft need to utilise the grass runway for controllability reasons, or because at the rear they feature a

skid rather than a wheel. The larger historic/vintage aircraft, and modern aircraft, tend to use the asphalt runway.

Because of the prevailing wind direction in East Anglia, the great majority of take-offs and landings at Duxford are made in a south-westerly direction. This is fortuitous as the phase of flight in which a pilot has least time to react to any emergency, and if necessary position for a low circuit to land or an off-aerodrome landing, is during the initial climb directly after take-off. To the south-west the terrain remains relatively open and unspoilt other than for hedgerows and foliage (see Figure 4, page 18), which are at least relatively frangible if impacted by an aircraft. Conversely, to the north-east the Duxford surroundings have become significantly congested by the development not only of housing but also commercial properties for Volvo, Welch's Transport, Holiday Inn Express and BP.

The Aerodrome operates as a Category Level 2 airfield on a day to day basis, but increases to Category 3 on airshows and as and when specific larger aircraft are due, for example the BBMF Lancaster. Please see Appendix B which explains the different categorisations and the work of Duxford Aerodrome's Rescue and Fire Fighting Service.

Duxford Aerodrome boasts a multiplicity of home-based piston-engined historic/vintage aircraft dating from WW1 to the 1960s; modern light aircraft are also resident at Duxford. Daily visitors can encompass piston, turboprop and occasionally jet types, and also civil and military helicopters including those of the emergency services.

Historic/Vintage

- Spitfire (all marks) and Hurricane - mainly Grass Runway (06L/24R)
- B17 (Flying Fortress) - Hard Runway (06R/24L) only
- Bristol Blenheim - mainly Grass Runway (06L/24R)
- P51 Mustangs - Hard (06R/24L) and Grass Runway (06L/24R)
- Tiger Moths - Grass Runway (06L/24R) only due to skid undercarriage
- DH Rapides - Hard (06R/24L) and Grass Runway (06L/24R)
- DHC-1 Chipmunks - Hard (06R/24L) or (mainly) Grass Runway (06L/24R)
- Catalina Amphibian - Hard (06R/24L) and Grass Runway (06L/24R)
- P40 Kittyhawks - mainly Grass Runway (06L/24R)
- Hawker Biplanes – Grass Runway (06L/24R) only

Light/Modern General Aviation (representative types only)

- Cessnas* - Hard (06R/24L) and Grass Runway (06L/24R)
- Cherokees* - Hard (06R/24L) and Grass Runway (06L/24R)
- Robins* - Hard (06R/24L) and Grass Runway (06L/24R)
- PA34 Seneca - Hard (06R/24L) and Grass Runway (06L/24R)

*These types of aircraft are non-historic but regularly visit Duxford carrying the sizeable number of Museum visitors who are able to arrive by air. Further, such aircraft attend from other airfields for training purposes, as Duxford is recognised as a safer site for this purpose than the many airfields which have become encircled by habitation to the extent of having restrictions.

> ***"Accidents such as failure to get airborne, collision with obstacles after take-off and over-run on landing occur frequently to light aeroplanes…."***
>
> Section 1 Introduction (a) CAA SafetySense Leaflet 7c Aeroplane Performance – CAA January 2013

However, it has to be accepted that visiting pilots, even when diligently briefed, will be less familiar than Duxford pilots with local obstructions.

Defining the precise operational and performance capability of many historic and vintage aircraft is problematic as such data was not required to be codified for civil aircraft prior to 1949, and may never have been measured with precision for ex-military types. For the latter, adequate but not exhaustive information will be embedded in the bespoke Permit to Fly limitations which the CAA raise before allowing such aircraft to fly in the civil environment. Non-aviators might reasonably regard historic and vintage aircraft operation as analogous to classic car motoring, for which not every modern requirement may be practicable to meet. Adequately safe operation (with risks rendered ALARP, 'as low as reasonably practicable') is nonetheless obtained by applying a sensibly cautious approach to operation, and by allowing some margin of error as insurance against a worst case event.

Grass Runway

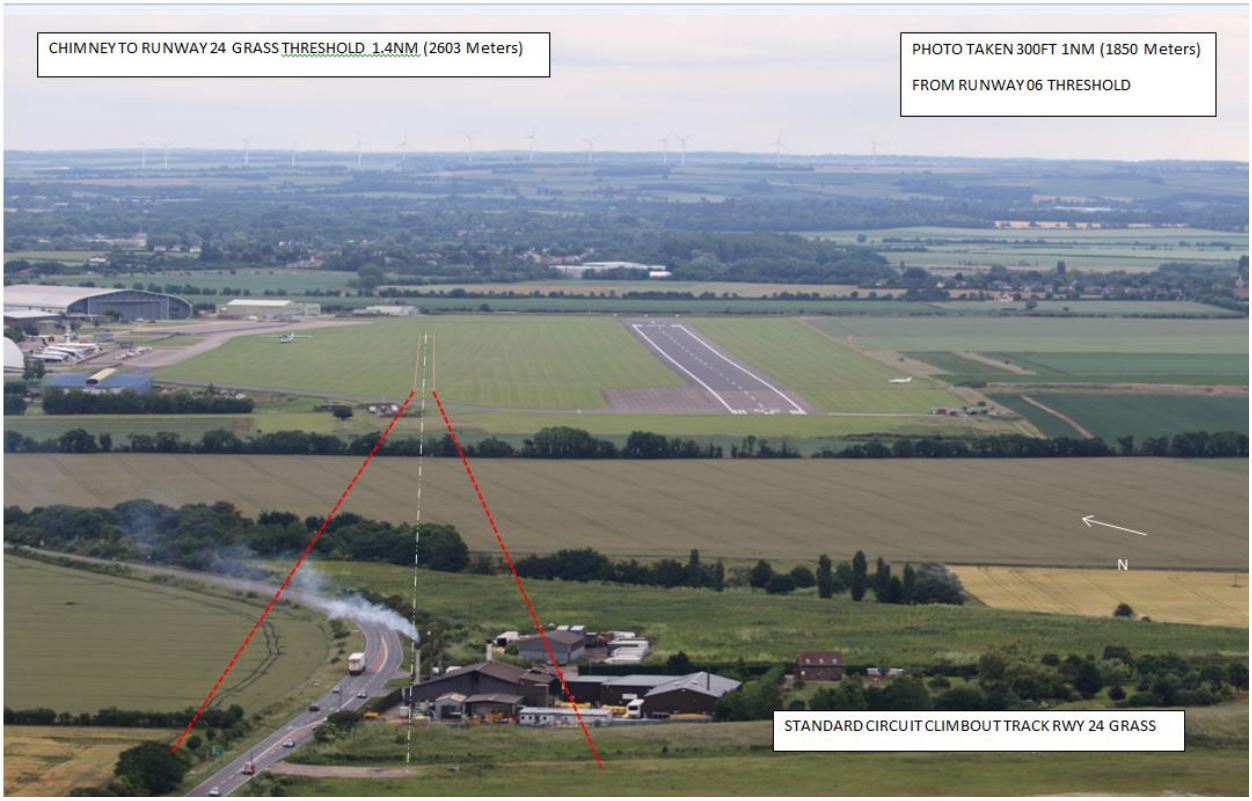
The current proposal / planning application submitted by the developer, Novus Environmental, Royston, Ref: S/008/15/CW is to construct and introduce a new 25m (82.9ft) chimney in line with our grass runway, and just over 1 kilometre away (please see Figure 2(a) below). Figure 2(a) shows and highlights the grass runway in respect to the current Vetspeed/Novus International processing plant.

Figure 2(a) - Grass Runway (06L/24R) at Duxford Aerodrome

Plainly the higher chimney, and the breadth of the Vetspeed site in general is of greatest significance for departures from the grass runway. However, especially with slower aircraft types, it is not always the case that the runway heading will be tracked accurately during the initial climb. In crosswind conditions an aircraft must compensate for drift, like a ferry boat seeking to cross a flowing river, and the correction required will normally increase as height is gained and windspeed increases. The slower flying the aircraft, the greater the correction required. Given that the pilot's view directly forward from a climbing aircraft can be limited by the nose ahead, it is not unusual for the achieved flight path to deviate slightly left or right of the extended runway centreline. Thus, in conditions of a strong southerly wind, an aircraft having taken off from the paved Runway 24 could well find itself tracking over the Vetspeed site.

With smaller lighter aircraft they are more subject to and affected by 'wind drift' i.e. the effect of wind buffeting the aircraft, pushing the aircraft across and diverting the aircraft from the planned path. The degree to which an aircraft will move of course will depend on both the aircraft, the experience of the individual pilot, aircraft performance and of course the wind speed and direction. The image overleaf (Figure 2(b)) shows some possible impact this can have, with the red-dotted lines indicating possible drift/divergence.

Figure 2(b) - Grass Runway (06L/24R) at Duxford Aerodrome (Drift)



It will be noted that we concentrate here on the case of aircraft taking off in a south-westerly direction, rather than landing to the north-east. This is because in visual flight conditions we assess the take-off and initial climb to entail much greater risk of emergency or error than a stable approach to land. In the take-off case the aircraft and engine performance is not yet proven on that particular flight, the nose is high and forward view obstructed, the pilot may be regaining familiarity having not flown recently, and a sudden failure will require decisive and correct action to change the aircraft pitch attitude, maintain flying speed and obtain a safe outcome.

In contrast, the landing approach by definition occurs when both pilot and aircraft are in steady state operation, and is characteristically a more measured operation. In turn, this frees mental capacity for other tasks, and improved spatial awareness in respect of avoiding known obstructions will certainly be one benefit. Nonetheless, chains of events can conspire to cause 'undershoot' accidents such as that which occurred in 1989 at Kegworth near East Midlands Airport.

With specific reference to Engine Failure After Take-Off (EFATO) training/testing, at Duxford Aerodrome for safety reasons this has to be undertaken for both asphalt and grass runway take-offs away from the M11 i.e. in the direction of the Vetspeed/Novus International processing plant. This is primarily due to the M11 itself and the considerable concentration of buildings in the surrounding area.

4. Safety Scenarios

IWM Duxford acknowledges that the height of the proposed chimney is lower than the statutory clearance height currently required by the UK's Civil Aviation Authority. However our assertion is that those statutory clearance heights are not entirely relevant to the operational realities of operating historic and vintage aircraft within the context and environs of Duxford Aerodrome.

As requested by the Planning Committee we have endeavoured for various types of aircraft to provide factual evidence to show the safety implications of a loss of engine power or other arising.

In order to ensure that our assessment of risk is relevant we have used scenarios based on some of the aircraft that currently regularly fly from Duxford (see Section 3).

Each type of aircraft has different capabilities and practical limitations. Historic and vintage aircraft are generally:

- Affected by changes to atmospheric conditions, especially high ambient temperatures, wind, and air turbulence;

- Extremely subject to 'blind spots' directly in the pilot's forward field of view. This issue is greatly exacerbated when climbing with the aircraft nose pointed well above the horizon. *Spitfires are notoriously blind for approximately 300ft in front of the aircrafts nose*;

- In need of more generous margins for prudent operation, given that actual performance capabilities may be uncertain – especially during the initial test flying of rare or unique aircraft types for which no recent experience exists;

There are numerous factors which can impact on a pilots or aircrafts performance. However in line with the Planning Committee's specific concerns this report focuses on:

- *Temperature*
- *Weather Conditions*
- *Emissions*
- *Engine Failure*

Temperature

Hot summer days – or local areas of elevated temperature downwind of an industrial exhaust – imply a reduction in air density which can be very significant for the efficiency of aircraft wings, propellers, and engines. The combined effect is to

lengthen the take-off run of any aircraft, and to reduce both the rate and gradient of initial climb.

> ***"Temperature: performance decreases on a hot day. On really hot days many pilots have been surprised by the loss of power in ambient temperatures of 30°C and above. Remember, temperature may be low on a summer morning but very high in the afternoon."***
> Section 5 General (e) CAA SafetySense Leaflet 7c Aeroplane Performance – CAA January 2013

For all Duxford aircraft, high temperature operations will require use of a markedly greater length of the runway in order to achieve the requisite air speed. The subsequent climb will also be shallower in these conditions, reducing clearance over any ground obstacles in the flight path.

Therefore a prudent assumption is that an aircraft may only leave the ground at the very end of the grass runway nearest to the Vetspeed/Novus Environmental site which is 0.84nm/1,572m from the end of the grass runway.

In addition if an aircraft were to fly through emissions which will assume are at 35 degrees centigrade as per ASA Ltd's report, this could adversely impact on the aircrafts engine performance.

Weather Conditions

In addition to the effects of temperature, weather conditions can also adversely affect aircraft in two key ways. Firstly, wind or temperature-induced turbulence may require considerable pilot attention to maintain a desired air speed and/or to track a desired path. Corollaries of this fact are a potential reduction in climb performance, due to drag caused by the deflected control surfaces, and diversion of pilot attention. Likely outcomes are a failure to make good the ideal departure track and a diversion of mental capacity and spatial awareness. Inadvertent drift into the emissions from the chimney stack, or into the chimney stack itself, are conceivable in these circumstances. The strength of the wind can 'buffer' aircraft, particularly small lighter aircraft, making manoeuvring the aircraft more difficult. This can take new or trainee pilots in particular by surprise, and if they do not or cannot take avoiding manoeuvres this could lead to aircraft drift directly into the emissions from the chimney stack, or the chimney stack itself.

"Manoeuvre performance: '…..outside air temperature/ altitude will similarly affect engine power available."
Section 5 General (m) CAA SafetySense Leaflet 7c Aeroplane Performance – CAA January 2013

Secondly weather or into-sun conditions can sometimes make obstacles hard to see, just as when driving. This combined with the blind spots on some vintage and historic aircraft would mean that a 25m (82.9ft) chimney stack provides a correspondingly greater risk to such aircraft than at present. A chimney seen from the air against a background of terrain may become to all intents invisible.

Impact of emissions

It is worth noting that we understand that the full implications of the emissions have not yet fully been assessed. However with reference to ASA Ltd's report it states that the emissions temperature would be 35 degrees centigrade, presumably continuously.

Having consulted with pilots of vintage/historic aircraft the consensus is that:

(1) In a marginal case the potentially elevated air temperature could have an adverse impact on engine, aircraft and propellers performance, albeit temporarily, reducing the rate of climb after take-off (slowing of their engines and dropping of altitude).

(2) Air turbulence generated by an upwind heat source could cause upset to lighter aeroplanes, requiring coarse control inputs for correction and which in turn create drag and reduce rate of climb. [Note: an established Gas Venting Station between Duxford and Ickleton is regarded as sufficiently hazardous to be marked on aeronautical charts]

(3) There was concern from some Duxford pilots as to possible health implications – noting that some aircraft do not have enclosed cockpits. [Odours from the existing chimneys are sometimes very noticeable even at ground level on Duxford Aerodrome]

Engine Failure

There are numerous reasons for an aircraft of any age to suffer a partial or complete engine failure after take-off. A most basic cause is when ground refuelling has accidentally occurred with an unsuitable grade. It is the landing options available (along with the experience of the pilot) which can make all the difference to the final outcome.

As a generality it is most often the case that unsuspected problems will surface in the early moments of a flight, just after take-off and while climbing away from an

aerodrome. At this time the physical demands placed upon the engine and its cooling are greatest and steady state operation has yet to establish. Other equipment, such as that for undercarriage retraction or electrical generation, may be first used at this time – with attendant specific forms of other emergency therefore becoming possibilities.

> ***"In the event of engine failure after take-off, achieve and maintain the appropriate approach speed for your height. If the runway remaining is long enough, re-land; and if not, make a glide landing on the least unsuitable area ahead of you. It is a question of knowing your aircraft, your level of experience and practice…….. Attempting to turn back without sufficient available energy has killed many pilots and passengers. (One day, at a safe height, and well away from the circuit, try a 180° turn at idle rpm and see how much height you lose! – then remember you will probably have more drag, and have to turn more than 180º, in a real situation.)"***
>
> Section 20 Take-Off (d) and;
>
> **"Do not apply extreme control movements at any time."**
>
> Section 26 Speed Control (g) CAA SafetySense Leaflet Good 1e Airmanship – CAA January 2013

Importantly an aircraft may face difficulties not because of a singular factor, but as recognised by the Civil Aviation Authority an aircraft may face difficulties due to a combination of factors, for example external temperature exacerbating the consequence of engine failure (i.e. reduced manoeuvrability).

The following scenario(s) endeavour to set out scenarios under 'good conditions' and scenarios under conditions pilots and crews could face.

Example Scenario

Duxford Aerodrome is home to dozens of historic and vintage aircraft as well as smaller modern aircraft. In order to provide actual and factual examples referenced below are scenarios which cover two popular and iconic Duxford resident aircraft: the de Havilland Rapide; and the Bristol Blenheim; it is also worth noting the concerns with regard to the Royal Air Force Aerobatic Team display team, *the Red Arrows*.

Scenario: de Havilland Rapide

The de Havilland Rapide is an early twin engine biplane airliner which dates from 1934. It was still used on the Scilly Islands route by British European Airways (BEA) as late as 1964. At IWM Duxford these aircraft have been used for 33 years to carry up to 8 passengers at a time on aerial tours of Duxford and the locality.

Thanks to its BEA history, the Rapide aircraft benefits from unusually comprehensive performance charts for a vintage aircraft. From them can be deduced the angle of climb after take-off from Duxford's grass Runway 24.

- Realistic assumptions are made as follows:
- Propeller type X9 [representative of the propellers used on the Duxford Rapide aircraft]
- Aircraft at 5,750 lbs take-off weight [250 lb less than maximum permitted]
- Air temperature 30°C
- Nil wind

In which circumstances:

Case A:

With both engines running normally, the gradient of climb can be 7.74% upward. [4.4° above horizontal]

Case B:

With one engine stopped (e.g. after a failure) the aircraft will descend on a gradient 2.31% downward. [1.32° below horizontal]

From which two illustrative scenarios are:

> ***Case A:***
> With both engines running normally, and if lift-off from grass Rwy 24 occurred only at the extreme end of the licenced run, with approx. 1569m horizontal distance to the Vetspeed site, the Rapide aircraft would clear a 25m chimney by 95m vertically.
>
> ***Case B:***
> If on take-off from grass Rwy 24 the aircraft had achieved 36m height above the extreme end of the licenced run - which would be typical - and one engine then failed, and the aircraft continued straight ahead, the aircraft would descend on a gradient 2.31% downward to impact the Vetspeed site at ground level.

Case A is marginal in terms of obstacle clearance and peace of mind, but is permissible in regulatory terms for a take-off event. Please note, however, that even

a CAA Air Display Permission would not allow a Rapide aircraft to fly this close to occupied buildings or to persons.

Case B indicates that an engine failure shortly after take-off is an extreme emergency situation for this aircraft type, especially at high take-off weights and in elevated ambient temperatures. The likely best outcome is a controlled descent to an off-airfield landing. Scope for turning either to left or right is limited as any such manoeuvre would increase the rate of descent. The continued availability of un-developed areas ahead of the take-off path is thus very much a matter of flight safety. Irrespective of the proposed taller chimney, the growing proportions of the Vetspeed operation have already impinged markedly on a pilot's emergency options to the south west of Duxford Airfield (See Figure 4).

"Twin engines: if there is an engine failure after lift-off on a twin, you will not reach the scheduled single engine rate of climb until:
• the landing gear and flaps have retracted (there may be a temporary degradation as the gear doors open); and
Under limiting conditions an engine failure shortly after lift-off may preclude continued flight and a forced landing will be necessary. ……• Performance and stall speed margins will be reduced in turns. All turns must be gentle."
Section 6 Take-Off Points to Note (c)- CAA SafetySense Leaflet 7c Aeroplane Performance – CAA January 2013

Figure 3 - View of the Grass Runway with the Vetspeed/Novus International processing plant directly ahead

Scenario: Bristol Blenheim

The Aircraft Restoration Company Ltd which operates out of Duxford Aerdrome and renovates, maintains and operates Spitfires, and has recently secured the contract to service and carry-out maintenance of the BBMF's Lancaster Bomber (including installing and testing new engines), also restored and operates the only surviving Bristol Blenheim.

The Aircraft Restoration Company Limited have provided their analysis of scenarios pertaining to the Bristol Blenheim with regard to the safety implications at **Appendix D**.

Scenario: The 'Red Arrows'

The Royal Air Force Aerobatic Team (Red Arrows) as per Military Aviation Authority requires any aerodrome where they are to perform to highlight any obstruction in excess of 50ft above Aerodrome Level (Note the current chimney is slightly under this at 49ft 2.5inches (15m).

The Red Arrows re-assess their risks of displaying at aerodromes and airshows. 2016 has already seen them perform at Duxford, at the same time as ceasing to perform at a number of other aerodromes/airshows. It has been indicated that the

construction of a 82.9ft (25m) chimney would mean the Red Arrows would need to reassess whether they could continue to support airshows and displays at Duxford,

The image at (Figure 4) below helps show the line of the runway in line with the Vetspeed/Novus Environmental processing plant. This currently also shows the fields in which forced landings often take place.

Figure 4 - View of Duxford Aerodrome Runways with the Vetspeed/Novus Environmental processing plant directly ahead, and the likely area for 'forced landings'

Duxford Aerodrome Rescue and Fire Fighting Service has not only provided support to local incidents not related to the aerodrome; but they attend and provide emergency support/service to incidents both inside the aerodrome and in the surrounding fields involving aircraft (related to forced landings) including the fields adjacent to the Vetspeed/Nous Environmental site.

In addition the operational size of the site will further expand with the introduction of internal service roads, push the operations further south, further in line with Duxford Aerodrome's runways.

5. Conclusion

So in summary would the erection of a 25m (82.9ft) chimney be:

(1) New?
Answer: Yes self-evidently. Although attached to an existing site and expanding operation, It would be new. It is not a like for like replacement. It is as we understand a brand new chimney and at 25m (82.9ft) it is 60% (10m/33.2ft) higher than the existing chimneys.

(2) Significant?
Answer: Yes. It would be new; and it would be significantly higher than any other obstacle in the immediate vicinity, and 60% higher than the existing chimneys. Therefore it is and would be 'noteworthy'. Indeed with reference to ASA Ltd's report it would need to be flagged as an obstacle to aircraft coming into or out of Duxford Aerodrome; it would also need to be notified to the Royal Air Force Aerobatic Team (Red Arrows) as per Military Aviation Authority requirements highlight any obstruction in excess of 50ft above Aerodrome Level (Note the current chimney is slightly under this at 49ft 2.5inches (15m).

(3) A Hazard?
Answer: Yes. Any upstanding protrusion or obstacle whether temporary or permanent, in a potential flight/take-off/landing path and so close to an aerodrome is self-evidently a hazard, a 'potential source of danger'. If an aircraft were to fly into or clip the proposed chimney it could, and would in all probability, lead to a serious and possibly fatal incident. This could include fatal or life-changing injuries not only to the pilot/crew/passengers but of the aircraft but also those working or visiting the Vetspeed/Novus Environmental complex, and possibly traffic/users of the A505 immediately next to the site.

Therefore we believe that because of the case set out above in this report that the proposed new chimney stack would represent **a *significant hazard*** (to quote the terminology of Mineral and Waste Core Strategy Policy CS40).

This would therefore put flight safety at risk, and therefore in all probability the long-term continuation of Duxford Aerodrome as an operational airfield after nearly 100 years of historic service; the success of IWM Duxford as Cambridgeshire's premiere visitor attractions, which is of national and international historical importance; our educational programmes including our practical STEM focus; on-site partner businesses focused on the restoration and maintenance of historic and vintage aircraft, pilot training and pleasure flights and the continuation of air-shows – all of which directly support over 300,000 visitors, and 250 jobs.

Report End

References:

1. Royal Air Force Red Arrows Support Manual 2016 Season – Royal Air Force Aerobatic Team (RAFAT)

2. Flight safety implications of a proposed chimney stack to be sited near Duxford airfield: Consultant's Report February 2016 – ASA Ltd on behalf of Cambridgeshire County Council

3. Email: Clarification of requirements in relation to the Pyrolysis Plant Application (S/0008/15/CW) following Planning Committee
   From: Fitch Emma Sent: 13 May 2016 11:58hrs

4. CAA SafetySense Leaflet 7c Aeroplane Performance – CAA January 2013/CAA Website 2016

5. CAA SafetySense Leaflet Good 1e Airmanship – CAA January 2013/CAA Website 2016

6. CAA Safety Management Systems (SMS) Guidance for Organisations CAP795 – CAA February 2015

7. CAA Air Navigation: The Order and Regulations CAP 393 – CAA, Fourth Edition April 2015

Appendix A

Response to ASA Limited Report Conclusions

With regards to the *conclusions* of Alan Stratford Associates Ltd can be as follows:

a) *As a CAA licensed airfield, Duxford must ensure that no obstacles breach the (minimum) take-off and climb and approach surfaces. At Duxford, both the take-off and climb and the approach surfaces would be approximately 25m above the top of the propose chimney, so no breach would occur.*

   As per our report, IWM Duxford agrees that acknowledges that the height of the proposed chimney is lower than the statutory clearance height currently required by the UK's Civil Aviation Authority. However our assertion based on the analysis we have carried out (and summarised in this report) is that those statutory clearance heights are not relevant to the operational realities of operating historic and vintage aircraft within the context and environ of Duxford Aerodrome.

b) *Based on a typical 3 degree glide slope surface, landing aircraft would clear the chimney by some 43.29m (or 142.0ft). This represents an adequate clearance height for both vintage and more modern aircraft.*

   The majority of Historic and Vintage aircraft do not have technical operating manuals as with modern aircraft (post 1970). Many of the historic and vintage aircraft all of whom operate safely out of Duxford Aerodrome operate under a 'Permit to Fly' issued by the CAA, rather than the 'Certification of Air Worthiness'.

   This calculation does not take into account the potential consequences of an aircraft developing technical difficulties – remembering Duxford Aerodrome is a centre of excellence for the refurbishment, renovation and maintenance of historic and vintage aircraft.

   Therefore having consulted with over 40 pilots and engineers of historic and vintage aircraft - we would submit that the historic and vintage aircraft are not 'typical' and therefore reliance on ASA Ltd's application of 'a typical 3 degree glide slope surface' would represent a risk.

   In addition many student pilots train in and around Duxford Aerodrome.

   The Royal Air Force Aerobatic Team 'the Red Arrows' fly practiced routines including their signature synchronised pair rountines which they fly at 100ft above the ground, at 600 miles per hour. The Royal Air Force Aerobatic Team

require aerodromes to inform them of any obstacles above 50ft, within 6 nautical miles. The proposed chimney stack is 82.9ft. We believe that if this chimney stack was to be built it would potentially put such displays at risk.

c) *All aircraft using Duxford could turn after take-off to avoid the chimney stack and smoke plume.*

This presumes that no performance issues arise with the aircraft on take-off or approach – remembering that Duxford Aerodrome is home to vintage and historic aircraft, their flying, maintenance, testing and pilot training. It is worth noting that performance issues with aircraft are more probable during and just after take-off and when coming into land with changes to engine stress as well as with landing gear, and flaps.

In addition there are already a number of avoid/restricted areas, the erection of this 25m (82.9ft) stack would introduce a new additional hazard and therefore restriction, which in turn would make flying into and out of Duxford Aerodrome more complex; and reduces the options for manoeuvring and/or recovery action in the case aircraft develop technical difficulties. Aircraft have previously had to carry out emergency landings in the fields directly in line with the runways.

d) *Smaller vintage and more modern aircraft would make a curved approach into the airfield to avoid overflying the chimney and would avoid the smoke plume.*

There are already a number of avoid/restricted areas, the erection of this 25m (82.9ft) stack would introduce a new additional hazard and therefore restriction, which in turn would make flying into and out of Duxford Aerodrome more complex; and reduces the options for manoeuvring and/or recovery action in the case aircraft develop technical difficulties. Aircraft have previously had to carry out emergency landings in the fields directly in line with the runways.

e) *Larger vintage and more modern aircraft use the asphalt rather than the grass runway and therefore do not directly overfly the chimney on approach. Even if the grass runway were to be used, the clearance height would be sufficient.*

This presumes that no performance issues arise with the aircraft on take-off or approach – remembering that Duxford Aerodrome is home to vintage and historic aircraft, their flying, maintenance, testing and pilot training. It is worth noting that performance issues with aircraft are more probable during and just after take-off and when coming into land with changes to engine stress as well as with landing gear, and flaps.

f) *There are no safety risks imposed by aircraft flying through the smoke plume and pilots would not inhale the smoke fumes.*

Given the fact that most vintage and historic aircraft will depart and land on the grass runway; and that our understanding is that the emissions will reportedly include nitrogen dioxide amongst other noxious gases there is a likelihood some of those gases could enter the cockpits some of which are not enclosed.

g) *If desired by the IWM, or required by the CAA, information about the stack location may be included in the UK AIP EGSU AD2.10, and in Pooley's Flight Guide for Duxford (Reference 9). No type A or obstacle charts are currently published for Duxford.*

Safety of operations is and will remain paramount for IWM Duxford. We acknowledge that we can, and confirm that if planning permission is granted we would, look to ensure that information about the stack location may be included in the UK AIP EGSU AD2.10, and in Pooley's Flight Guide for Duxford. We would also review and adjust all relevant risk assessments and work with our partners to adjust, amend or cease current practices as necessary – this will lead to restrictions to operations.

Appendix B

Explanation of Categorisation of Airfields

The UK's Civil Aviation Authority clearly sets down the categorisation of airfields with specific respect to the level of Rescue and Fire Fighting Service (RFFS) cover that airfields must provide.

CAA CAP 168 chapter 8 RFFS provision 8.9 states.

The level of fire protection normally available at an aerodrome should be expressed in terms of the category of the rescue and fire fighting services as described in table 8.1 and in accordance with the types and amounts of extinguishing agents normally available at the aerodrome.

Table 8.1 Aerodrome category for rescue and fire fighting

Aerodrome Category	Aeroplane overall length	Maximum uselage width
1	Up to but not including 9M	
2	From 9M up to but not including 12M	
3	12M up to but not including 18M	3M
6	28M up to but not including 39M	5M

These are all licenced movements which mean passengers have paid to go on the flight, Duxford Aerodrome can operate licenced movements up to Category 3 (CAA CATs run 1-10).

Duxford Aerodrome can also operate aircraft such as the B-17 and Catalina which are unlicensed category 4 aircraft which we operate under a duty of care to provide the required RFFS provision.

The largest non-licenced aircraft Duxford Aerodrome has seen C-130 Hercules, BAE 146 and the Lockheed Constellation which are category 6 and again are operated under a duty of care with regards RFFS provision.

Duxford Aerodrome Rescue and Fire Fighting Service has not only provided support to local incidents not related to the aerodrome; but they have attended and provided incidents both inside the aerodrome and in the surrounding fields involving aircraft including ones the fields adjacent to the fields (related to forced landings) near the Vetspeed site.

Appendix C

Civil Aviation Authority's Example Hazard Log

Relates to Chapter 4, Safety Risk Management, CAA CAP 795

July 2016

Example Hazard Log:

Identified Hazard	Associated Risk (consequence)	Existing Mitigation Measures in Place	Current Level of Risk	Further Mitigation Measures	Revised Level of Risk	Action By and when
			Severity *Likelihood* *Tolerability*		*Severity* *Likelihood* *Tolerability*	

Example Severity Table:

SEVERITY OF CONSEQUENCES		
Aviation definition	**Meaning**	**Value**
Catastrophic	Results in an accident, death or equipment destroyed	5
Hazardous	Serious injury or major equipment damage	4
Major	Serious incident or injury	3
Minor	Results in a minor incident	2
Negligible	Nuisance of little consequence	1

Example Likelihood Table:

LIKELIHOOD OF OCCURRENCE		
Qualitative definition	**Meaning**	**Value**
Frequent	Likely to occur many times (has occurred frequently)	5
Occasional	Likely to occur sometimes (has occurred infrequently)	4
Remote	Unlikely to occur but possible (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	2
Extremely improbable	Almost inconceivable that the event will occur	1

Note: The definitions used above are an example only. You may find it more useful to define quantitative definitions, such as, number of events in a given time period or events per number of flights depending on your type of operation.

Example Risk Tolerability Table:

Risk Likelihood	Risk Severity				
	Catastrophic 5	Hazardous 4	Major 3	Minor 2	Negligible 1
Frequent 5	Unacceptable	Unacceptable	Unacceptable	Review	Review
Occasional 4	Unacceptable	Unacceptable	Review	Review	Review
Remote 3	Unacceptable	Review	Review	Review	Acceptable
Improbable 2	Review	Review	Review	Acceptable	Acceptable
Extremely improbable 1	Review	Acceptable	Acceptable	Acceptable	Acceptable

UNACCEPTABLE: The risk is unacceptable and major mitigation measures are required to reduce the level of risk to as low as reasonably practicable.

REVIEW: The level of risk is of concern and mitigation measures are required to reduce the level of risk to as low as reasonably practicable. Where further risk reduction/mitigation is not practical or viable, the risk may be accepted, provided that the risk is understood and has the endorsement of the Accountable Manager.

ACCEPTABLE: Risk is considered acceptable but should be reviewed if it reoccurs or changes that affect the risk are made.

Appendix C

Aircraft Restoration Company's Assessment – Bristol Blenheim Scenario

Aircraft Restoration Company
Propshop Ltd
Building 425
Duxford Airfield
Duxford
Cambridge
CB22 4QR

4th July 2016

Graeme Etheridge
Executive Director
IWM Duxford
CB22 4QR

Graeme,

The Bristol Blenheim is a 1938 design, and was used extensively by the Royal Air Force at the outbreak of the Second World War. Our example is the only Blenheim MK I left in the world, either as a flyer or a museum exhibit. It is therefore extremely rare and precious!

Operating the aircraft, in today's environment of concrete runways and obstacles, brings its own challenges. The aircraft was designed to be operated from grass airfields with adequate clearances for approach to land and take-off.

Obviously we do not operate the aircraft at war time "all up weight" (AUW), the lack of armaments and operational equipment dictate that the normal operating weight is between 9700 lbs and 12000lbs. These lower weights increase our safety margins should an engine failure occur, however, the aircraft still requires good clear take-off and approach paths should a failure occur.

An example of a pre take-off brief will show you the likely considerations on take-off.

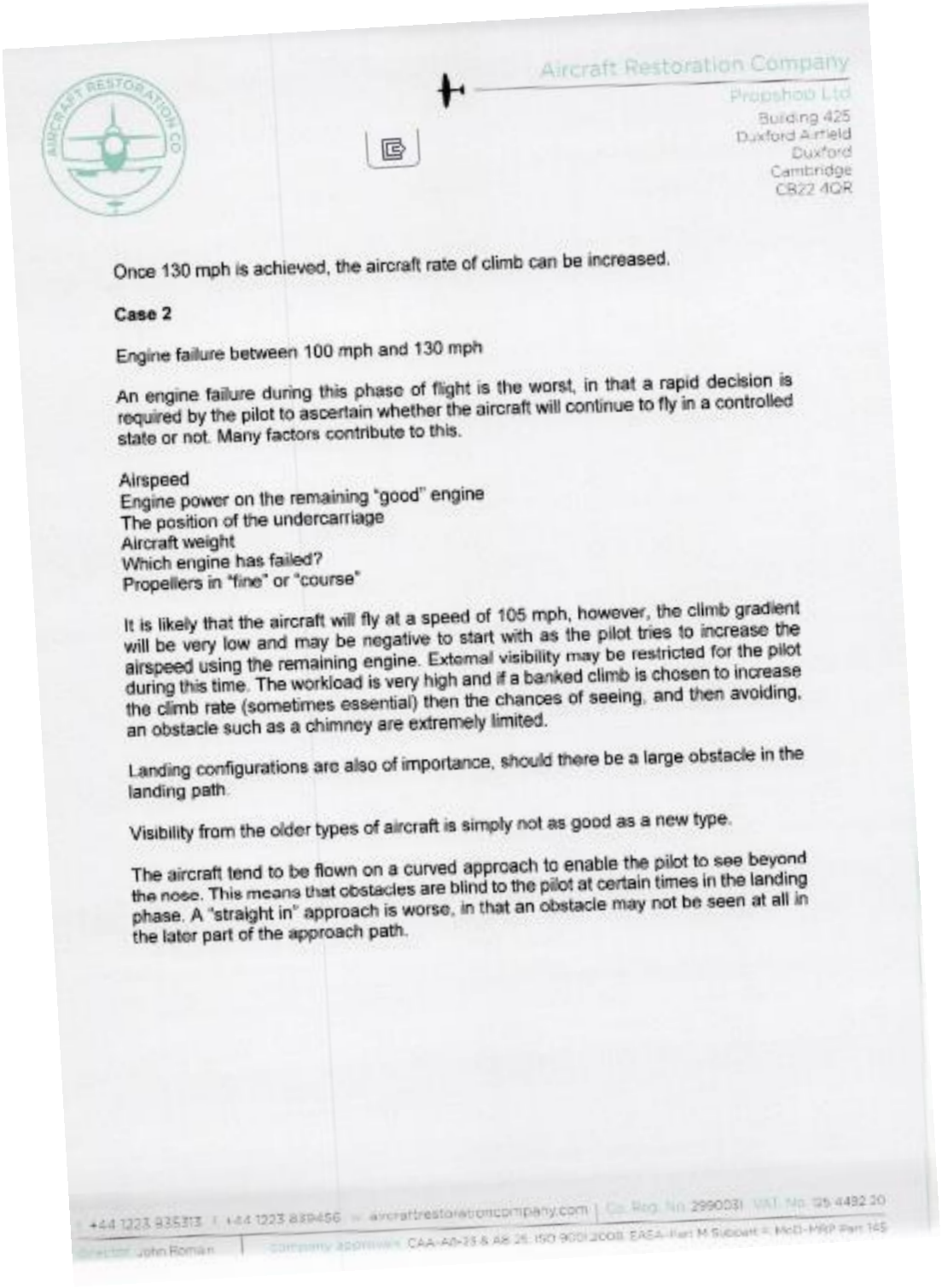
Airfield and Aircraft data (Typical)

Runway 24 Grass
Temp + 24°c
Nil wind
Aircraft weight 10,500 lbs

Case 1 – Normal Take – off

The aircraft will accelerate well and become airborne within 700 metres. A very shallow climb is then flown to allow the airspeed to build beyond 130 mph. This shallow climb is essential to allow the airspeed to build whilst the undercarriage is retracted and the propellers changed into "course" pitch. The aircraft will get airborne at about 75 mph, any failure between 75 mph and 100 mph would necessitate the aircraft being landed immediately ahead.

t +44 1223 835313 f +44 1223 839456 w aircraftrestorationcompany.com | Co Reg No 2990031 VAT No 125 4492 20
director John Romain | company approvals CAA-A8-23 & A8-25, ISO 9001:2008, EASA-Part M Subpart F, MoD-MRP Part 145



Aircraft Restoration Company
Propshop Ltd
Building 425
Duxford Airfield
Duxford
Cambridge
CB22 4QR

Once 130 mph is achieved, the aircraft rate of climb can be increased.

Case 2

Engine failure between 100 mph and 130 mph

An engine failure during this phase of flight is the worst, in that a rapid decision is required by the pilot to ascertain whether the aircraft will continue to fly in a controlled state or not. Many factors contribute to this.

Airspeed
Engine power on the remaining "good" engine
The position of the undercarriage
Aircraft weight
Which engine has failed?
Propellers in "fine" or "course"

It is likely that the aircraft will fly at a speed of 105 mph, however, the climb gradient will be very low and may be negative to start with as the pilot tries to increase the airspeed using the remaining engine. External visibility may be restricted for the pilot during this time. The workload is very high and if a banked climb is chosen to increase the climb rate (sometimes essential) then the chances of seeing, and then avoiding, an obstacle such as a chimney are extremely limited.

Landing configurations are also of importance, should there be a large obstacle in the landing path.

Visibility from the older types of aircraft is simply not as good as a new type.

The aircraft tend to be flown on a curved approach to enable the pilot to see beyond the nose. This means that obstacles are blind to the pilot at certain times in the landing phase. A "straight in" approach is worse, in that an obstacle may not be seen at all in the later part of the approach path.

Aircraft Restoration Company
Propshop Ltd
Building 425
Duxford Airfield
Duxford
Cambridge
CB22 4QR

I could add a host of technical data to the above, i.e. climb/descent gradients and bank angle to stall speeds. However, the facts remain, that in operating any aircraft, especially vintage types, an obstacle placed in the take-off or approach path is an added element of danger that should not be considered. It places an unacceptable level of risk on both the crews and the general public.

Kind regards

John Romain

t +44 1223 835313 f +44 1223 839456 w aircraftrestorationcompany.com | Co. Reg. No 2950351 VAT No 125 4492 20
director: John Romain | company approvals: CAA-AR-25 & 88.25, ISO 9001:2008, EASA-Part M Subpart F, MoD-NRP Part 145

Graeme Etheridge

Executive Director, IWM and

Accountable Manager for Duxford Aerodrome

IWM Duxford

Duxford Airfield

Cambridge CB22 4QR

Tel: 01223 835000

E Mail: getheridge@iwm.org.uk

Wass Helen

From: Waddams, Tony <tony.waddams@environment-agency.gov.uk>
Sent: 16 June 2016 10:42
To: Matthew Day
Cc: Wass Helen
Subject: RE: EA ref: AC/2015/123451 - NOVUS , THRIPLOW - CHIMNEY HEIGHT QUESTION

Good morning Matthew

WITHOUT PREJUDICE

I can only comment, as a planning team member, on the application as submitted.

It may be possible that the chimney height can be reduced at the EA permitting stage subject to the prior written approval of the AQUIA modelling.

Regards

Tony Waddams

Tony Waddams
Planning Liaison
Environment Agency

From: Matthew Day [mailto:matt@biomassprojects.co.uk]
Sent: 15 June 2016 15:45
To: Waddams, Tony
Subject: Re: EA ref: AC/2015/123451 - NOVUS , THRIPLOW - CHIMNEY HEIGHT QUESTION

Hi Tony,

Would it be possible to simply confirm that the EA, as part of this consultation process for Planning Permission, are not able to 'negotiate' over the height of the chimney but that the height may be able to be reduced if the EA receive an application for a Permit and the detail of the AQIA modelling can be reviewed in detail at that stage.

We have simply been asked to ask the question, we do not want to incur costs or any further delays if possible.

Please call me if this does not make sense.

Thanks

Matthew Day

Biomass Power Projects Ltd
Sanderum Centre

Chinnor
Oxon
OX39 4TW

tel. +44 (0)1844 351316
mob. +44 (0)7940 752446

On 15 Jun 2016, at 14:24, Waddams, Tony <tony.waddams@environment-agency.gov.uk> wrote:

Good afternoon Mr Day

I have spoken to my colleague in our PPC Regulatory team who advises me that this is not a question we can respond to at area level. Air dispersion modelling is assessed by the Agency's Air Quality Management and Assessment Unit (AQMAU) who are based in Bristol. They are usually consulted as part of the permitting process. They would have to look at the applicant's modelling files and see whether a lower stack height is appropriate.

It will be necessary for you to contact AQMAU direct and enquire whether they would assess their files outside the usual permitting channels. Any such assessment would likely be charged for.

Contact details;
National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
Emailenquiries@environment-agency.gov.uk
Telephone 03708 506 506
Telephone from outside the UK (Monday to Friday, 8am to 6pm GMT) +44 (0) 114 282 5312
Minicom (for the hard of hearing) 03702 422 549
Monday to Friday, 8am to 6pm
Regards

Tony Waddams

Tony Waddams
Planning Liaison
Environment Agency

Dear Mr Waddams,

Your ref: AC/2015/123451/03-L01
Planning ref: S/0008/15/CW

The above planning application went in front of CCC planing committee last month and they decided to defer their decision and asked that I contact you to see if the EA woudl be willing or open to the idea to relax the conditions that determine the height of the chimney. I realise that the EA have strict guidelines to ensure that the dispersion of emissions from a process such as this do not have any (insignificant) effect on human health, crops and surrounding land. However, I have formally beed asked to discuss this with you to see if there is any way that we may maintain the output of the plant with emission limits as set out in the application and agree that we can operate safely with a lower chimney.

My consultants who undertook the dispersion modelling are not willing to make any changes to their model or the assumptions or the output or their recommendation of the chimney height of 25m.

I do require a written response to this question in order to satisfy the planing committee.

Yours sincerely,

Matthew Day

Biomass Power Projects Ltd
Sanderum Centre
Chinnor
Oxon
OX39 4TW

tel. +44 (0)1844 351316
mob. +44 (0)7940 752446

Ms Emma Fitch
Cambridgeshire County Council
SH135, Shire Hall
Castle Street
Cambridge CB3 0AP

Cc Ms Helen Wass (CCC) 11 July 2016

Dear Emma

IWM Duxford submission re Planning Application No S/0008/15/CW Novus Environmental

Thank you for sending through a copy of the latest report submitted by IWM Duxford in relation to the planning application by Novus Environmental.

We have reviewed this report and we conclude that this does not in any way alter the findings and conclusions of our earlier report provided for you. We have also discussed the matter with the UK CAA who advise that they do not act as arbitrators in matters of this type. They did however point out that if a 25m chimney were to constitute a significant safety risk, IWM Duxford, as a CAA licensed aerodrome, should have advised them that the obstacle clearance surfaces and, if appropriate, the declared runway distances must be reduced below that defined in CAP 168 – 'Licensing of Aerodromes' as part of the aerodrome's safety case. They do not appear to have done this.

It must be noted that all aviation activities have some element of risk and all those participating in these as pilots or passengers tacitly accept this. The issue is whether this risk is acceptable. We believe the IWM Duxford has substantially overemphasized the safety risks in respect of the proposed chimney, its associated smoke plume and pyrolysis plant and that all the risk likelihoods are extremely improbable.

We agree with IWM Duxford that there is a lack of aircraft performance data for many historic and vintage aircraft types. Nevertheless, it is possible to make a clear assessment as to whether the chimney and the associated pyrolysis plant (Vetspeed) represents a significant safety hazard in respect of operations at IWM Duxford.

As indicated in the attached diagram, the plant is approximately 1,280m from the upwind threshold of R24 Grass. The whole Vetspeed site subtends an angle of around 10 degrees, measured at this threshold. A turn of 5 degrees at the threshold would therefore miss the site altogether. This figure is well within the norms of any departure for any aircraft (including historic and vintage aircraft) in any operational weather conditions including those flown by pilots undergoing training.

In the case of an engine failure at take-off (EFATO), the chimney and the plant could still be avoided, particularly if the aircraft turns immediately after take-off as part of a standard departures procedure. Dependent on the aircraft height at the time of the engine failure, a further limited turn could be made.to avoid the chimney and the plant. The area to the right and left of the Vetspeed site appears to have few obstacles of any sort and are generally acceptable options for an off-airfield emergency landing

As indicated in IWM Duxford's report, take-off is generally regarded as a greater safety risk than approach and landing. Nevertheless, the chimney is well within the CAP 168 obstacle clearance limits on approach for a 3 degree glide slope. We disagree with the IWM Duxford that some aircraft normally using the grass runway (which are typically smaller aircraft) would not be capable of a 3 degree straight-in approach above the chimney nor would not be able to make a curved approach to avoid the chimney.

IWM Duxford suggest that smaller aircraft could be affected by wind-drift which would increase the risk of collision with the chimney. Again, we do not accept this as, if this is a cross-wind, pilots could use this to their advantage to make the necessary turn. Similarly, whilst higher air temperatures would increase the take-off distance required and the rate of climb, any risk of collision with the chimney would still be negligible

As far the smoke plume is concerned, we believe that aircraft would normally be able to avoid this altogether. If however, an aircraft were to fly through this, the impact of the plume temperature and emissions on the aircraft and on the pilot (if an open cockpit) would again be negligible in view of the very short period of exposure.

Whilst all the factors described do have some very slight impact on overall aircraft safety, the risk of any collision with the chimney or in the area of the plant itself must be assessed as improbable or highly improbable under CAA definitions and should therefore be deemed as acceptable in operational terms. As a result, we do not believe that the plant and the chimney represent a 'significant safety risk'.

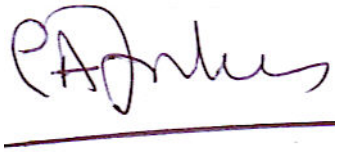
IWM Duxford's latest report states that it has been endorsed by the Chairman of the General Aviation Safety Council (GASCo), Air Commodore Rick Peacock-Edwards. This would appear to be in a personal capacity rather than endorsed by GASCo itself. It should be pointed out that Air Commodore is the Chairman of IWM Duxford's Flying Control Committee.

I would also like to put on record my own qualifications and experience and that of my team who assisted me in preparing this report. I have been employed for over 32 years in the aviation industry – initially with a commercial airline and subsequently with the UK Civil Aviation Authority (in the Department of Operational Research and Analysis). For over 20 years I have worked as a Senior Consultant and

subsequently as Director of Alan Stratford and Associates Ltd where I have undertaken a wide range of technical studies including assessment of the operational implications of potential building development around UK airfields, including Wycombe Air Park (Booker), Bicester and Truro airfields. My colleague, Rod Fewings is a civil engineer specialist in airport issues and was previously a Senior Lecturer in the Department of Air Transport at the University of Cranfield. Nils Jamieson is a commercial pilot who also flies vintage aircraft. He is an advisor with the General Aviation Safety Council. Nils has advised specifically on the performance capability of aircraft using Duxford including vintage and classic aircraft.

Both myself and Nils will be attending the Planning Committee meeting on 21 July and will be able to respond to any questions that may arise.

Yours sincerely



Peter A Forbes
(Director)

Google Maps

Imagery ©2016 Infoterra Ltd & Bluesky, The GeoInformation Group, Map data ©2016 Google 500 m

Measure distance
Total distance: 1.28 km (4,199.61 ft)

Review of the the Imperial War Museums' report to Cambridgeshire County Council

Produced by:
Biomass Power Projects Ltd.

Technical input from:
Specialist Airport Services Ltd
Vetpseed Ltd

10th July 2016

Introduction

This report has been produced in response to the Imperial War Museum's (IWM)Technical Report for Cambridgeshire County Council. This report highlights the issues with the IWM's technical report and provides comments to Cambridgeshire County Council (CCC). We have commented on relevant technical notes in their report and for ease of reference we have copied the relevant paragraph from the IWM's report. We have not commented on the historical background of the IWM or non-planning related matters or non-air safeguarding or non-air traffic safety issues.

Review

Page 3, para3:

> It is acknowledged that the height of the proposed chimney obstacle is below the statutory clearance surface currently required by the UK's Civil Aviation Authority for visual flight operations. However, one of our contentions is that regulatory requirements prescribe minimum clearances, and that these clearances would have been based on a sample of operating manuals/data for aircraft – and as such may not be entirely relevant to the realities of operating historic and vintage aircraft (many of which were manufactured without the production of operating manuals as we or the CAA would recognise them) within the context and environs of Duxford Aerodrome

It is significant that the IWM have confirmed that the chimney is below the OLS. Previously they had stated the chimney would breach surface limits and that was the reason they were objecting. Now they confirm it is below the surface limits, so by definition the proposed chimney is not a hazard in these terms*. It must be recognised that this chimney cannot be classed as a hazard to planes flying in 'normal' conditions.*

Previously, the IWM has claimed, on a number of occasions, on email and in meetings, that they had a Type 1 Survey. This is an additional area, which has a lower take-off surface, which at 25m the chimney would breach. However, following our freedom of information request to the CAA, we revealed that they do not in fact have a Type A survey. In these meetings it was stated that if we lowered the chimney to below the Type A height then they could not object.

It has been confirmed by SAS, the Council and now the IWM that the chimney is below the surface and therefore is not an obstacle or hazard as defined by the CAA.

Page 3, para 4:

> This report has been reviewed and endorsed by the Chairman of the General Aviation Safety Council; and Chairman of Duxford Aerodrome's Independent Flight Safety Committee.

The IWM cite what appear to be independent experts: The Chair of the General Aviation Council and the Chairman of Duxford Aerodrome's Independent Flight Safety Committee. This is in fact the same man, Rick Peacock Edwards, who we would argue should not be considered as an independent expert, but who is closely linked with IWM. We note that he is also not the author of this report.

Mr Peacock Edwards is chairman of The Historic Aircraft Association, which was set up to assist the CAA to allow historic aircraft to fly safey. Their website states:

> This group comprised a number of respected test pilots as well as several owners of historic aircraft. Its main purpose was to provide a depository of technical knowledge and expertise, available for use by the CAA.

It is assumed that the CAA, in establishing and maintaining the permit at the IWM, have a good knowledge of the historic aircraft.

Page 4, para 1:

> This report focuses on why the construction of a 25m (82.9 ft.) chimney would introduce a significant hazard to flying into and out of Duxford Aerodrome. Notwithstanding this obvious headline item, we request that this report should also be considered in the context of many previous successive (and entirely lawful) Vetspeed/Novus planning applications. Collectively, the perhaps unforeseen effect has been the incremental creation of what is even today something of a hazard to air and road traffic

Historic planning applications are not relevant. It does demonstrate that the erecting and movement of chimneys have not been an issue and has not raised any air safety concerns to date. The IWM have never raised any concerns regarding the existing chimney nor is it noted on any aerodrome flight information for pilots. So we can safely assume that 15m

high chimney is of little or no concern to the IWM or its pilots. There have been no reports of near misses.

Page 5, para 2:

> The last point is a key issue and is the driver for our concerns with regard to the safety implications of the Vetspeed site, and in particular the construction of a 25m (82.9 ft.) chimney. Additionally, there are issues of uncertain extent with regard to the heat and pollutant content of the chimney emissions.

The extent of the heat plume is well defined in the report by CERC 'Dispersion modelling impact on flight paths from Duxford aerodrome' and this has been taken into account by the ASA report who confirm this is not a safety issue.

Page 6, para 2:

> Duxford Aerodrome constantly reviews its risk management approach, both for general day to day operations and airshows. Given reference to the term 'significant hazard' we look here to quantify that term. In terms of 'significant' we define this (in line with standard English) as 'sufficiently great or important to be worthy of attention; noteworthy'.

The IWM's definition of significant seems to have been taken from Google and is not strictly relevant in it use here as assessment of hazards of any kind are worthy of attention. Other definitions which relate to a physical object are 'great' and 'very important'. Significant in this use means greater than average. It is understood that Planning Policy assumes there may be some impact on air traffic safety and it is assumed that an aerodrome may have to take some appropriate measures to manage and mitigate for this.

Page 6, para 5:

> Apart from the risk of an aircraft simply flying directly into the proposed chimney stack because of its location, weather conditions and pilot factors - given that on average there is approximately one 'forced landing' in the surrounding area per annum (see section 4 'Safety Scenarios' for some causes/contributory factors) we would assert that the likelihood of occurrence would be either "Occasional (i.e. Likely to occur sometimes (has occurred infrequently); and/or Remote (i.e. Unlikely to occur but possible (has occurred rarely), with reference to CAA definitions.

The IWM state clearly that there is on average 1 forced landing per year in the surrounding area. We assume that by this they mean 1 forced landing per year by aircraft taking off from the IWM on either the grass or tarmac runway. We also assume that a force landing means the plane has actually left the runway and is not an aborted take-off as this would not pose any issues to the Vetspeed site. We would have expected to see the IWM log to support this claim. We have checked and there have been no reports of any forced landings on the Air

Accident Incident Boards (AAIB) website. We can only conclude that either forced landings are not being reported, or this is in fact not the case.

However, if it is true that 1 forced landing per year is taking place by planes taking off from Duxford IWM, that is alarming news and of great concern to those in the vicinity. It would be pertinent information not only to the operators of Vetspeed but also the Highways agency and the number of users on the A505 who could be at risk, as well as users of the M11 in even greater numbers, the residents of Duxford, Whitlesford and the individual houses around the airfield.

A forced landing, for any reason should be reported to the AAIB and it should be of serious concern to the management at the IWM, rather than something that seems to be taken as normal, and 'just what happens' at the IWM as part of their testing and training practice or everyday flying.

Please note that the Air Accidents Investigation Branch website, which records all air accidents, has no records on its data base of any forced landings. The relevant reported incidents we found on the AAIB website were:

- 2nd August 2006 – Dragon Rapid, tips forward when landing on grass runway
- 30th April 2015 – T-28A Trojan, front landing gear collapse on runway
- 10th July 2011 - P-51D Mustang, midair collision during air show
- 2nd August 2003 - L-39ZO Albatros, forced landing when on a low flight path during air show

The AAIB records show that there have been no forced landings during take-off from either runway.

This raises serious concerns over the ability/willingness of the IWM to report incidents, or is this report in fact making claims of forced landings to inflate the perceived increase in risk of any new development

In order for the claim of 'one forced landing per year' to be taken into account we would expect, at the very least, the IWM to have included Mandatory Occurrence Reports (MORs), Accident or Incident reports, AAIB reports and other documents in support of this statement.

We assume that the IWM's assessment of risk which takes 'likelihood of occurrence' into account has been based on 'one forced landing per year' and they therefore assume the likelihood is 'occasional' or 'remote' based on this assertion. If in fact, if there have no forced landings the likelihood of occurrence will be 'extremely improbable' based on the number of take-off's the aerodrome has had over its many years of operation. When the 'extremely improbable' likelihood is applied to the CAA's risk profile it is either acceptable for a Major Incident or Review if a Serious Incident. The risk can be mitigated by a Review, which has been carried out by SAS with following proposed mitigation methods:

1) The site is clearly defined and visible being adjacent to a main A road within the confines of a known site.

2) Although the stack is conspicuous by its construction the addition of suitable intensity Obstruction lighting can be added if IWM wish.
3) Promulgation (identification of the object) in Aeronautical Information Publication (AIP) and other pilot information documents.
4) The stack is not defined as an obstacle under Obstacle Limitation Surface review.
5) Continued use of the Aeronautical information Circular distribution for Air Show events detailing for e.g. “no run and breaks below 500ft” and that “The aerodrome authority reserves the right to close the aerodrome in adverse weather conditions being a cloud base below 600ftand or visibility less than 1500m.”

Therefore, if the reality is that there have been no forced landings during take-off from the grass runway then the risk is manageable using normal techniques that will not affect the everyday flights at the aerodrome. Vetspeed are willing and have offered to add additional safeguarding measures at no cost to the IWM.

If there are in fact 1 forced landing per year it brings the IWM safety and reporting procedures into question.

Page 7, para 2:

> Because of the prevailing wind direction in East Anglia, the great majority of take-offs and landings at Duxford are made in a south-westerly direction. This is fortuitous as the phase of flight in which a pilot has least time to react to any emergency, and if necessary position for a low circuit to land or an off-aerodrome landing, is during the initial climb directly after take-off. To the south-west the terrain remains relatively open and unspoilt other than for hedgerows and foliage (see Figure 4, page 18), which are at least relatively frangible if impacted by an aircraft. Conversely, to the north-east the Duxford surroundings have become significantly congested by the development not only of housing but also commercial properties for Volvo, Welch’s Transport, Holiday Inn Express and BP.

The IWM confirm, and it is understood, that the highest risk of engine failure and least time to react is during ‘initial climb and directly after take-off’. It is noted that this is when the engine is under full load with no ground contact and most susceptible to the shakes and vibrations when air-borne. It is assumed that ‘directly after take-off’ would be within the first 500m when the plane is still within the airfield site and 1000m and two fields away from Vetspeed.

The IWM report also states that there are suitable areas for forced landings to the south-west. It is noted that the development at the Vetspeed site will not infringe on these fields. It is also assumed that any pilot taking evasive action will steer away from Vetspeed and the adjacent A505 towards these fields.

Page 8, para 3:

> Defining the precise operational and performance capability of many historic and vintage aircraft is problematic as such data was not required to be codified for civil aircraft prior to 1949, and may never have been measured with precision for ex-military types. For the latter, adequate but not exhaustive information will be embedded in the bespoke Permit to Fly limitations which the CAA raise before allowing such aircraft to fly in the civil environment. Non-aviators might reasonably regard historic and vintage aircraft operation as analogous to classic car motoring, for which not every modern requirement may be practicable to meet. Adequately safe operation (with risks rendered ALARP, 'as low as reasonably practicable') is nonetheless obtained by applying a sensibly cautious approach to operation, and by allowing some margin of error as insurance against a worst case event

The IWM state that the historic aircraft do not have the same documentation as planes built after 1949 and that an acceptable level of risk is 'obtained by applying a sensibly cautious approach to operation, and by allowing some margin of error as insurance against a worst case event'. By this we assume that each pilot knows what the flying capabilities of his/her plane are, in particular at take-off, and that they then add a margin of error. We also assume that the historic aircraft are able to fly above the 3° slope set as the OLS discussed in these and the other reports. If they cannot fly at this angle, then they are flying outside of the permitted flying zones set by the CAA and the airfield. If this is the case, and historic aircraft are flying outside of the permitted areas, then this is done with the full knowledge of the pilot who has accepted those conditions. We would have expected to see examples of the Permit to Fly for these historic aircraft as part of the IWM's submission and more examples of historic aircrafts climb rate, not just the one twin engine example.

A permit to fly may be issued to aircraft that do not meet the International Civil Aviation Organisation (ICAO) certification standards required for the issue of a Certificate of Airworthiness (C of A) subject to satisfying certain requirements.

A national Permit to Fly is granted, in accordance with BCAR A3-7. Aircraft in this category are generally ex-military, amateur built, microlight, historic or without a valid Type Certificate. CAP 733 - "Permit to Fly Aircraft" is a comprehensive source of information regarding Permits to Fly and these are common permits that cover a large number of air worthy aircraft throughout the UK and are not just for historic aircraft.

The CAA in setting up and agreeing the airsafey at Duxford had access to the best knowledge base and the HAA would have played a role in advising them. We do not accept that the CAA would not have access to the right information on historic aircraft and the determination the minimum surface level or bespoke Permits with mitigation in place.

Page 8, para 4:

> The current proposal / planning application submitted by the developer, Novus Environmental, Royston, Ref: S/008/15/CW is to construct and introduce a new 25m (82.9ft) chimney in line with our grass runway, and just over 1 kilometre away

The report states that Vetspeed's proposal is 'just over 1km away'. This is misleading as the proposed chimney is actually 1560m from the end of the grass runway (O6L threshold).

Page 9, para 1:

> Plainly the higher chimney, and the breadth of the Vetspeed site in general is of greatest significance for departures from the grass runway. However, especially with slower aircraft types, it is not always the case that the runway heading will be tracked accurately during the initial climb. In crosswind conditions an aircraft must compensate for drift, like a ferry boat seeking to cross a flowing river, and the correction required will normally increase as height is gained and windspeed increases. The slower flying the aircraft, the greater the correction required. Given that the pilot's view directly forward from a climbing aircraft can be limited by the nose ahead, it is not unusual for the achieved flight path to deviate slightly left or right of the extended runway centreline.

The IWM confirm that 'slower aircraft types, it is not always the case that the runway heading will be tracked accurately during the initial climb.' This statement clearly shows that it is unlikely that historic, slower aircraft will track a direct straight line towards the chimney and that lateral drift is likely to occur. So the planes that IWM are most concerned about are likely to deviate away from the chimney and the centerline.

Page 10, para 1:

> It will be noted that we concentrate here on the case of aircraft taking off in a south-westerly direction, rather than landing to the north-east. This is because in visual flight conditions we assess the take-off and initial climb to entail much greater risk of emergency or error than a stable approach to land. In the take-off case the aircraft and engine performance is not yet proven on that particular flight, the nose is high and forward view obstructed, the pilot may be regaining familiarity having not flown recently, and a sudden failure will require decisive and correct action to change the aircraft pitch attitude, maintain flying speed and obtain a safe outcome.

We note again that 'the take-off and initial climb to entail much greater risk of emergency or error than a stable approach to land.'

The image on this page also clearly shows the two rows of dense trees that border the IWM site and the next field. The trees which border the IWM are semi-mature hardwood trees at a distance of 575m from the end of the grass runway. These trees have never been pruned or topped. The trees along this boundary range from 8m to 14m high. If we take an average tree at only 10m high at a distance of 575m the angle from the end of the runway is 1.02° (the ground is effectively level) and there is only 20m clearance to the OLS surface at an angle of 3°. In comparison the proposed chimney at 1560m away and 25m high is an angle of 0.92deg from the end of the grass runway. This is a shallower angle than required to clear the trees which the IWM deem to be safe to do. It is also noted that the time of highest risk is directly after take-off, which we assume would be before the plane had cleared the trees at 550m from the end of the runway.

The IWM considers a single thin object 1560m away, and well below the lowest flying surface and which can be maneuvered around if needed a significant hazard; but the IWM do not consider a wide row of trees 575m away with only 20m clearance and no ability to turn to avoid a hazard. The only difference being that trees are not as hard (frangible) as a chimney if a plane were to collide with them. We do not agree with the IWM's conclusion that the chimney is significant hazard when compared with other existing hazards and how the IWM approach the risk assessment towards them.

It should be noted that there is a second row of mature trees before the Vetspeed site at approximately 1100m and a height of up to 20m which is an angle of approximately 1°from the grass runway.

We consider the IWM to be overstating the level of risk that this single object will bring. The airfield should be more than capable of accepting and managing this additional low risk with no impact to their activities.

Page 11, para 1:

> IWM Duxford acknowledges that the height of the proposed chimney is lower than the statutory clearance height currently required by the UK's Civil Aviation Authority. However our assertion is that those statutory clearance heights are not entirely relevant to the operational realities of operating historic and vintage aircraft within the context and environs of Duxford Aerodrome.

We accept the IWM statement and we have always stated that the chimney at 25m is below OLS, the CAA statutory minimum clearance height.

However, the IWM state that they are a special case due to flying historic aircraft and the 'statutory clearance heights are not entirely relevant to the operational realities of operating historic and vintage aircraft within the context and environs of Duxford Aerodrome'. This, again, raises serious safety concerns because as we have seen at the minimum take off angle of 3° there is only 20m clearance above the first row of trees. It is not clear from the IWM statement if they do fly below the 3°or if they are allowed (under Permit to Fly) to fly below these limits, and if they are under specific conditions of their bespoke Permits to Fly, then the pilots must be very aware of the risk they are taking.

So either the planes must take off at greater than 3°, or the individual pilots have agreed a lower angle and the CAA have approved this, and the pilot will be aware of the limitations and he/she will plan accordingly. Using the existing trees as an example, the pilots who do fly below the OLS are confident that they can climb at great than 1° and very close (10m only maybe) above the trees. It is hard to imagine that the same pilot would consider a single object 1550m away as a greater risk than this.

Page 12, para 1:

> For all Duxford aircraft, high temperature operations will require use of a markedly greater length of the runway in order to achieve the requisite air speed. The subsequent climb will also be shallower in these conditions, reducing clearance over any ground obstacles in the flight path.

It is noted that excessive heat can reduce engine output and reduce the rate of climb. No evidence is given to the actual magnitude of these effects. It is assumed that if the grass runway is used then the pilot is capable of clearing the trees at a 1° angle or greater. All the assessments assume that the planes use the whole length of the runway.

Page 12, para 3:

> Hot summer days – or local areas of elevated temperature downwind of an industrial exhaust – imply a reduction in air density which can be very significant for the efficiency of aircraft wings, propellers, and engines.

The only technical evidence presented by the IWM on this point is the performance of the de Havilland Rapide in a later section and the climb rate is given as 4.4° at 30°C. Which is a climb rate great than the minimum OLS and at high daily temperatures rarely seen in the UK.

CERCs plume assessment demonstrates that the heat from the chimney will be very rapidly dissipated and both SAS and ASA consider this relatively every small area of warm air would not affect the performance of an engine. The IWMs report does not give any factual evidence to oppose this. The assessment of two historic aircraft assume air temperature of 24°C and 30°C which are hot summer days.

The assessment of 'Temperature' does not provide any facts that demonstrate the proposed new development would add a significant risk to the aerodrome.

Page 12, para 4:

> In addition to the effects of temperature, weather conditions can also adversely affect aircraft in two key ways. Firstly, wind or temperature-induced turbulence may require considerable pilot attention to maintain a desired air speed and/or to track a desired path. Corollaries of this fact are a potential reduction in climb performance, due to drag caused by the deflected control surfaces, and diversion of pilot attention. Likely outcomes are a failure to make good the ideal departure track and a diversion of mental capacity and spatial awareness. Inadvertent drift into the emissions from the chimney stack, or into the chimney stack itself, are conceivable in these circumstances. The strength of the wind can 'buffer' aircraft, particularly small lighter aircraft, making manoeuvring the aircraft more difficult. This can take new or trainee pilots in particular by surprise, and if they do not or cannot take avoiding manoeuvres this could lead to aircraft drift directly into the emissions from the chimney stack, or the chimney stack

The IWM state that it is 'conceivable' that a pilot may drift and collide with the chimney due to adverse weather conditions. Again, no evidence for this is given and no calculations or historical evidence is given. We would suggest it is more conceivable that the pilot would collide with existing trees.

As previously stated the airspace around Duxford requires aircraft to operate in a Visual flight rules (VFR) environment, basically clear of cloud with a flight visibility. This means the pilot must be able to operate the aircraft with visual reference to the ground, and by visually avoiding obstructions and other aircraft.

The MOD RA 2335 Flying Displays & Events requires a flight visibility of 3.7km and a cloud base of 1000ft above ground level. So providing the flying display flight crew brief contains information about the site, which they have to declare, it can be accounted for in the organizing of events.

Page 13, para 1:

> Secondly weather or into-sun conditions can sometimes make obstacles hard to see, just as when driving. This combined with the blind spots on some vintage and historic aircraft would mean that a 25m (82.9ft) chimney stack provides a correspondingly greater risk to such aircraft than at present. A chimney seen from the air against a background of terrain may become to all intents invisible.

In order to mitigate and reduce risk further Vetspeed have offered to install visual aids and other measure to ensure high levels of safety under visual flying.

Page 13, para 3:

> (1) In a marginal case the potentially elevated air temperature could have an adverse impact on engine, aircraft and propellers performance, albeit temporarily, reducing the rate of climb after take-off (slowing of their engines and dropping of altitude).

The worst case effect of emissions from the chimney has been fully assessed by CERC, ASA and SAS confirm that these would have a minimal, if any, impact on the planes or the pilot. There is no evidence supplied by the IWM to support their claims that would result in significant hazard.

Page 13, para 4:

> (2) Air turbulence generated by an upwind heat source could cause upset to lighter aeroplanes, requiring coarse control inputs for correction and which in turn create drag and reduce rate of climb. [Note: an established Gas Venting Station between Duxford and Ickleton is regarded as sufficiently hazardous to be marked on aeronautical charts]

The CERC report shows clearly that it is only on calm days that the plume will stay warm and rise in a column, so the IWM's assertion that there will be hot gasses causing turbulence for a significant distance down wind is incorrect and baseless. On days with wind speed of greater than a few knots the gasses are dispersed and cooled within a matter of meters from the chimney. The proposed process is nothing like a gas venting stack.

Page 13, para 5:

> (3) There was concern from some Duxford pilots as to possible health implications – noting that some aircraft do not have enclosed cockpits. [Odours from the existing chimneys are sometimes very noticeable even at ground level on Duxford Aerodrome]

The dispersion of emissions is the same as the heat, and happens very close to chimney. The emissions from the existing process is not the same as the proposed.

Page 15, para 6:

> With both engines running normally, and if lift-off from grass Rwy 24 occurred only at the extreme end of the licenced run, with approx. 1569m horizontal distance to the Vetspeed site, the Rapide aircraft would clear a 25m chimney by 95m vertically.

It is noted that the de Havilland Rapide under normal take off is clear of the chimney by 95m, which must be considered a safe distance.

Page 15, para 7:

> If on take-off from grass Rwy 24 the aircraft had achieved 36m height above the extreme end of the licenced run - which would be typical - and one engine then failed, and the aircraft continued straight ahead, the aircraft would descend on a gradient 2.31% downward to impact the Vetspeed site at ground level.

In case B of engine failure it is unclear when this would happen, if it was immediately after take-off, within say 250m then the aircraft would either land or hit the trees on the IWM site. If the engines fail after having cleared the trees at 550m from the end of the runway then it would make a slow descent, (with clear view of what is ahead), it may just clear the second line of trees before coming down at approximately 1500m away at the Vetspeed site or if it had drifted north on A505 or drifted south onto the memorial garden or neighbouring field.

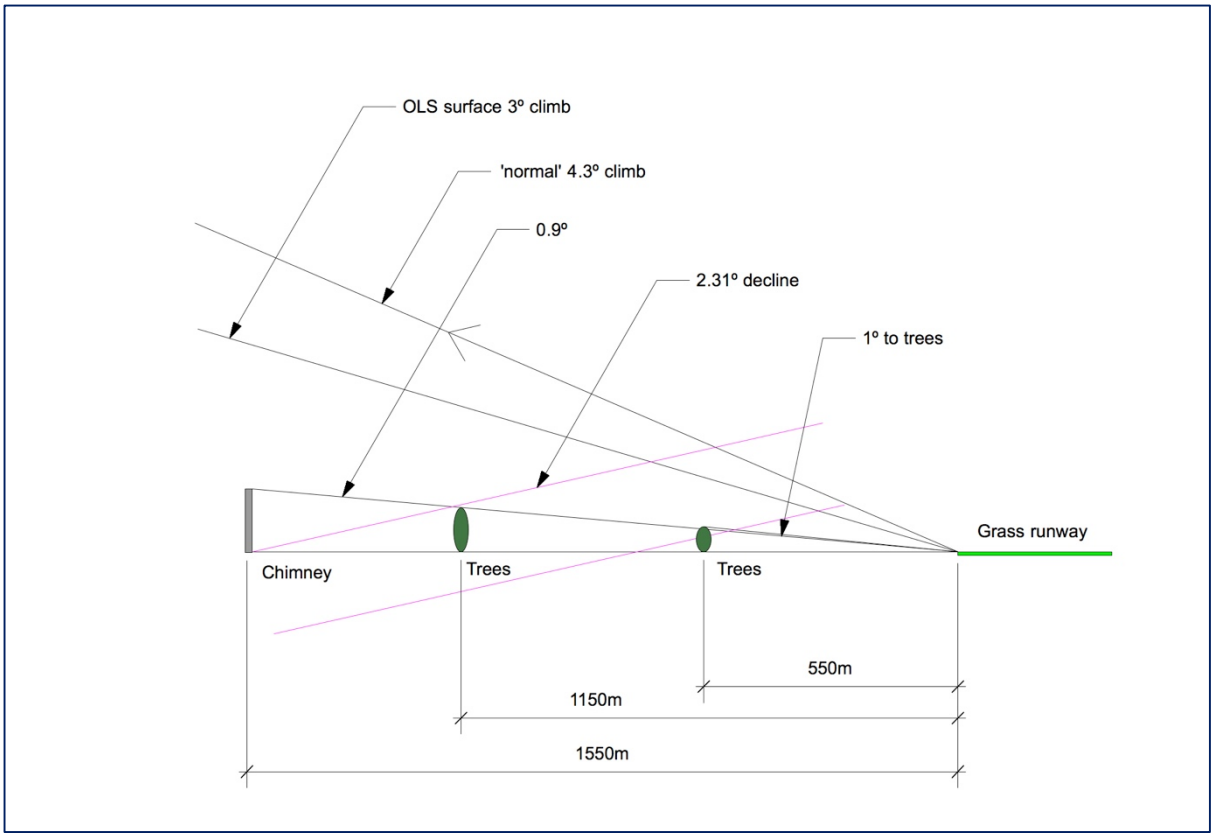


Figure showing relationship between various climb rates and clearance over existing trees.

This scenario makes two things very clear, if this plane or any other that cannot maintain an increase in its climb rate will come down at some point resulting in a forced landing and result in a major incident. If engine failure happens at a distance of 550m then the plane will crash land at the Vetspeed site, it will have hit the ground and not the chimney. So this statement and calculation by the IWM confirm that the proposed chimney is not the hazard as it will hit the ground. *The hazard seems to be flying planes that cannot maintain an increase in climb rate and the risk is not just to Vetspeed but the drivers on A505 which are also potentially on the crash line of the plane.*

We conclude that the IWM's scenarios do not conclusively confirm that the chimney is a 'significant hazard'.

Page 15, para 8:

> ***Case A*** is marginal in terms of obstacle clearance and peace of mind, but is permissible in regulatory terms for a take-off event.

The IWM state that 95m clearance above the chimney is 'marginal'. If so then what level of comfort does the 20m clearance above the trees provide them?

Page 16, para 1:

> CAA Air Display Permission would not allow a Rapide aircraft to fly this close to occupied buildings or to persons

The distance for airshows displays is not a suitable comparison and it is not clear if this is vertical or horizontal distances the IWM refer to.

Page 16, para 2:

> ***Case B*** indicates that an engine failure shortly after take-off is an extreme emergency situation for this aircraft type, especially at high take-off weights and in elevated ambient temperatures. The likely best outcome is a controlled descent to an off-airfield landing. Scope for turning either to left or right is limited as any such manoeuvre would increase the rate of descent. The continued availability of un-developed areas ahead of the take-off path is thus very much a matter of flight safety. Irrespective of the proposed taller chimney, the growing proportions of the Vetspeed operation have already impinged markedly on a pilot's emergency options to the south west of Duxford Airfield

No distance after take-off is given for this scenario. Our calculations show it is circa 550m after take-off giving 1000m to take action before reaching Vetspeed. Importantly the IWM confirm that the plane will come to land at ground level and not hit the chimney. The pilot would take evasive action to avoid the A505 in any case and the distance of 1000m is a reasonable distance to turn only the few degrees needed to avoid an obstacle on the ground.

The IWM are concerned over the 'footprint' of Vetspeed. Vetspeed have occupied this site for over 30 years, there have been chimneys on this site and the footprint of their operational site remains the same. The IWM's claim that the site as a whole posses a new risk seems unlikely and there is no evidence supplied in the form of obstacle identification to pilots, or any other documents identify it as a hazard.

Page 17, para 1:

> Temperarure +24°C
> Nil Wind
> Weight 10,500 lbs
>
> The aircraft will accelerate and become airborne within 700m. A very shallow climb is then followed to allow airspeed to reach 130mph. This shallow climb is essential to allow airspeed to build whilst undercarriage is retracted and the propellers are changed to "coarse" pitch. The aircraft will get airborne at about 75mph and failure between 75 mph and 100mph would necessitate the aircraft being landed immediately ahead. Once 130 mph has been achieved the aircraft rate of climb can be increased.

The ARCA letter annexed states that good clearance is needed for both take-off and landing. It states that under normal conditions take off is at circa 700m, which is 190m before the end of the runway where worse case assumptions are made. It is also noted that the air temperature is +24°C, which is a hot summer's day (and rare in England). So we assume that these are all worse case scenarios.

For Case 1 the ARCA letter does not give any climb rates, the letter does not give any distances where certain events would take place by. If, as per Case 1 here, the aircraft has an engine failure at 75mph to 100mph, which is a relatively low speed which we assume is immediately after take-off, then the plane will still be within the aerodrome site and would land before hitting the first row of trees. The Vetspeed site at this point is over 1000m away.

Case 2
Engine failure between 100 mph and 130 mph.
An engine failure during this phase of flight is the worst, in that a rapid decision is required by the pilot to ascertain whether the aircraft will continue to fly in a controlled state or not. Many factors contribute to this.
Airspeed
Engine power on the remaining 'good' engine
Aircraft weight
Which engine has failed
Propellers in fine or coarse
It is likely that the aircraft will fly at a speed of 105mph, however the climb rate will be very low and may be negative to start with as the pilot tries to increase air speed using the remaining engine. External visibility maybe restricted at this time. The workload is very high and if a banked climb is chosen to increase the climb rate then the chances of seeing and then avoiding an obstacle such as a chimney is limited.

The aircraft tend to be flown on a curved approach to enable the pilot to see beyond the nose.

Case 2 again does not give any climb or descend rates, not even any indicative or approximate distances, so this event could be happening at long distances with plenty of time or the plane could be at such heights that it is well clear of the chimney. The pilot does state that the flight path is curved to give visibility and surely this will mean that when taking off from the grass runway the aircraft will be banking away from A505 and Vetspeed.

The risk of this event happening has not been assessed, the likelihood of this event happening has not been considered nor stated.

Examination of this letter does raise concerns for take-off in existing conditions with the high trees at 550m to the west and the M11 on the east side at 350m from the end of the runway. If there is a likelihood that this plane and others could have engine failure during take-off the risk should be quantified and understood already. There are existing hazards that the pilot has to recognise and take into account when flying his aircraft, so the idea that the pilot now considers a single object 1550m away a significant risk seems unlikely.

Pilots like these take these risks every day at the IWM and a single, narrow object 1500m away would seem small in comparison to a row of trees with 20m clearance at 550m away or a busy motorway at 350m away.

The risk tolerance table that is in appendix C is relevant when assessing the existing risks and the new chimney and the key issue is likelihood of occurrence. The public records show that there has never been a forced landing due to engine failure reported by the IWM. So we assume that the IWM and their pilots see the likelihood of engines failure as either Improbable or Extremely Improbable which makes taking off an acceptable risk or one that needs review prior to taking off.

Page 17, para 4:

> It has been indicated that the construction of a 82.9ft (25m) chimney would mean the Red Arrows would need to reassess whether they could continue to support airshows and displays at Duxford,

Aerobatic displays will take the new chimney into account but there is no evidence to show that it would actually stop an air display or even change the nature of the display.

Page 18, para 3:

> Duxford Aerodrome Rescue and Fire Fighting Service has not only provided support to local incidents not related to the aerodrome; but they attend and provide emergency support/service to incidents both inside the aerodrome and in the surrounding fields involving aircraft (related to forced landings) including the fields adjacent to the Vetspeed/Nous Environmental site.

There has been no evidence of forced landings near Vetspeed, this again is an alarming statement as it has not been reported to the AAIB or Vetspeed as a near miss.

Page 19, para 2:

> New?
> *Answer: Yes self-evidently. Although attached to an existing site and expanding operation, It would be new. It is not a like for like replacement. It is as we understand a brand new chimney and at 25m (82.9ft) it is 60% (10m/33.2ft) higher than the existing chimneys.*

The chimney would be below the OLS by a significant margin, to help mitigate the introduction of the chimney mitigation measure can be taken such as notifying pilots of its existence. This does not make it a 'significant hazard' it makes it a small and manageable risk.

Page 19, para 3:

> Significant?
> *Answer: Yes. It would be new; and it would be significantly higher than any other obstacle in the immediate vicinity, and 60% higher than the existing chimneys. Therefore it is and would be 'noteworthy'. Indeed with reference to ASA Ltd's report it would need to be flagged as an obstacle to aircraft coming into or out of Duxford Aerodrome; it would also need to be notified to the Royal Air Force Aerobatic Team (Red Arrows) as per Military Aviation Authority requirements highlight any obstruction in excess of 50ft above Aerodrome Level (Note the current chimney is slightly under this at 49ft 2.5inches (15m).*

The new chimney is well below the OLS, it is not a hazard under normal operations as the lowest climb rate gives significant clearance above the chimney. The only risk seen here is engine failure at take-off, which is extremely improbable to occur, and if it were to happen there are open fields in front and to the side of Vetspeed. The new chimney would be at such a distance away that the pilots would have time to maneuver before they reached Vetspeed. Even if they did reach Vetspeed they would be on the ground by then.

Conclusion

The IWM's report does not provide any technical evidence that the new chimney would be a 'significant hazard' to air traffic safety. The report was not authored by an aviation expert and its conclusions have not been reached through suitable, standard or qualified means. What this report tries to do is to use limited information in support of a desired conclusion. Those who have been quoted or who have compiled this report are neither independent experts, nor unbiased.

The IWM claim that historic aircraft fly outside the CAA's surface limits for take-off of 3°, but the only evidence given in this report shows that they climb at 4.3°. Just because they do not have full CofA and need a Permit to Fly does not mean they cannot climb at greater than 3°.

The Permit to Fly helps ensure that the planes are well maintained and fit to fly and as such avoid any failures. There is no evidence of any forced landings due to engine failure.

The assertion by the IWM that there is one forced landing per year has driven the risk assessment and is misleading as it assumes the likelihood of an event happening is greater than in reality. The likelihood of a major or serious incident goes from remote (as assessed by the IWM) to extremely improbable and the risk becomes acceptable or to be reviewed. The level of severity has been derived using the European Strategic Safety Initiative - Guidance on Hazard Identification – March 2009.

Table 3; Risk Classification / Tolerability Table

		Probability of Occurrence (Likelihood)				
		Extremely improbable	Extremely remote	Remote	Reasonably probable	Frequent
		< 10-9 per hour	10-7 to 10-9 per hour	10-5 to 10-7 per hour	10-3 to 10-5 per hour	1 to 10-3 per hour
ESARR 4 Severity	Accidents	Review (Medium)	Unacceptable (High)	Unacceptable (High)	Unacceptable (High)	Unacceptable (High)
	Serious Incidents	Acceptable (Low)	Review (Medium)	Unacceptable (High)	Unacceptable (High)	Unacceptable (High)
	Major Incidents	Acceptable (Low)	Acceptable (Low)	Review (Medium)	Unacceptable (High)	Unacceptable (High)
	Significant Incidents	Acceptable (Low)	Acceptable (Low)	Acceptable (Low)	Review (Medium)	Unacceptable (High)
	No Effect Immediately	Acceptable (Low)	Acceptable (Low)	Acceptable (Low)	Acceptable (Low)	Review (Medium)

The IWM, despite a clear request, have not produced a technical report that can be checked or independently verified. The scant technical information that has been supplied with the report actually helps show that historic aircraft do fly above the OLS and if engine failure were to occur they would likely hit trees or land on fields long before reaching the Vetspeed site.

Pilots taking off in aircraft that cannot climb if an engine fails are currently satisfied that the likelihood of engine failure is so low that they will clear all hazards that are close to the aerodrome, notably mature trees and the M11. The proposed new chimney is significantly less of an obstacle than the existing trees.

We would like to confirm the report acknowledges the following:

1. The chimney is not an obstacle when tested against the permitted flying zones and OLS.
2. The chimney is not a hazard when using the hard runway for take-off and landing.
3. The chimney is not a hazard when airborne and 'normal' flying for any type of aircraft
4. The chimney is not a hazard when landing on the grass runway.
5. The chimney is not a hazard when normal take off procedures are followed and normal climb rates are maintained

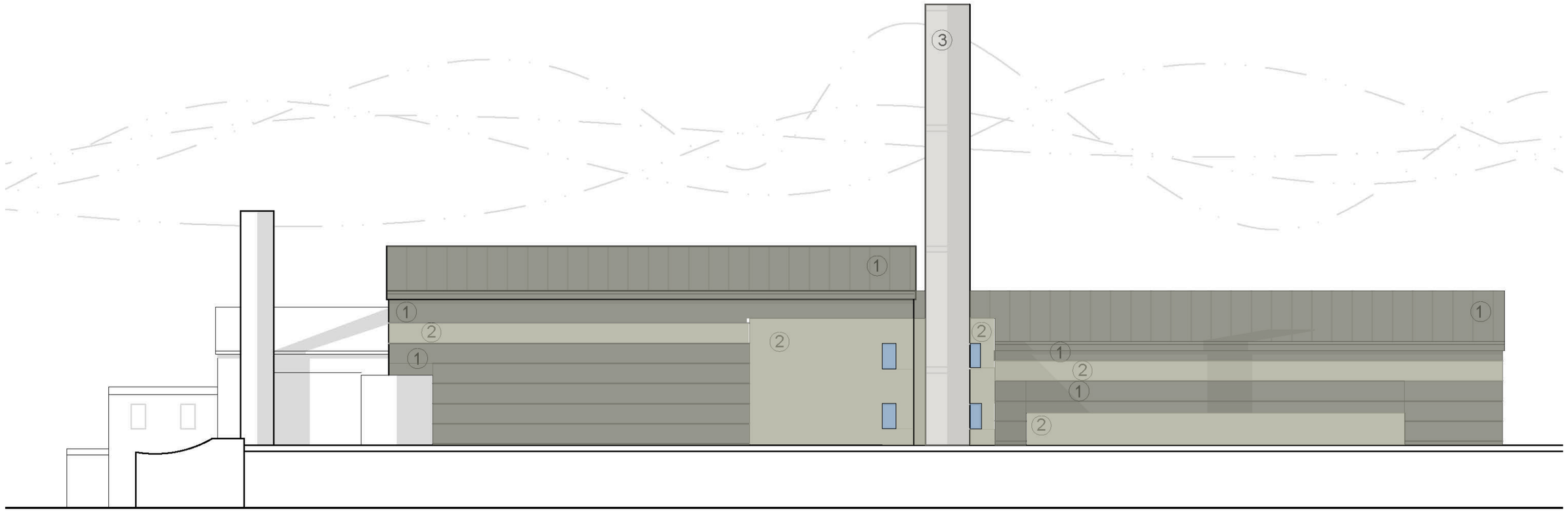
We are concerned about several statements in this report and would request that evidence or further explanation should be provided concerning:

1. The number of movements stated as 25,000 and half on the grass runway.
2. 1 forced landing per year and needing emergency vehicle assistance.
3. 1 forced landing near Vetspeed.

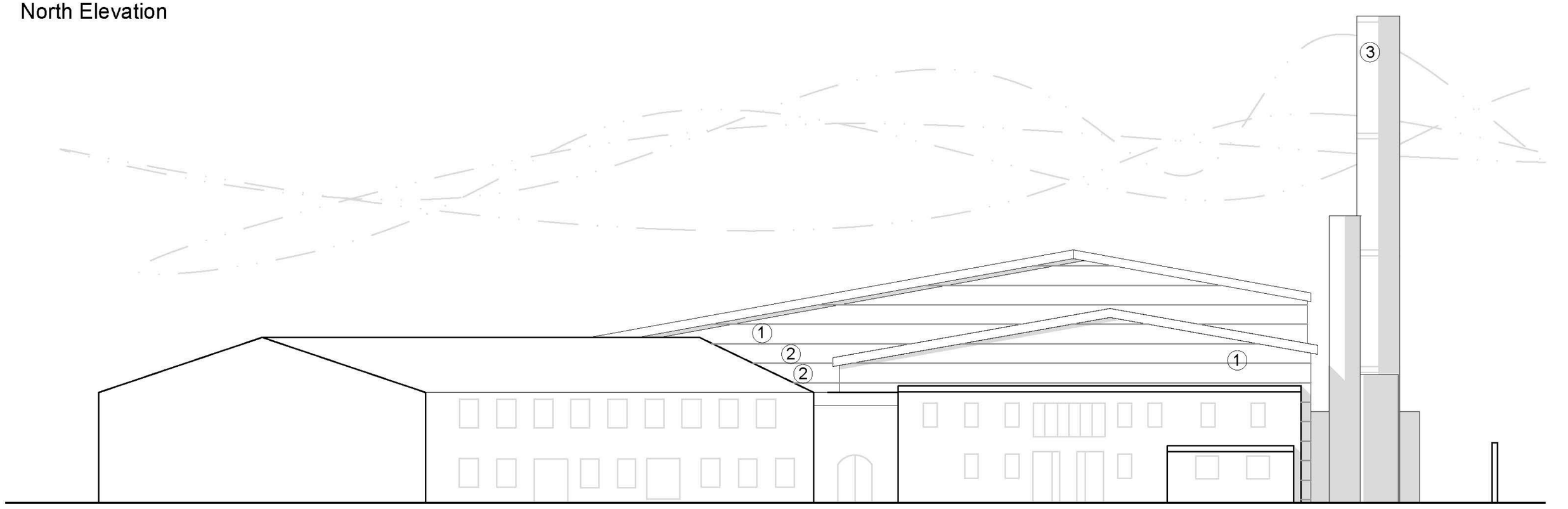
The IWM report focusses on historical aircraft and their ability to avoid danger during take-off but no strict methodology has been followed to quantify the risk, the assessment has been more anecdotal than based in fact.

The report claims that the introduction of the new facility will 'close us down' but nowhere is this claim substantiated. Is the IWM claiming that the risk of collision is so high [if the chimney were to be built] that they could no longer fly, or are they currently flying outside the CAA's permitted fly zones and this will raise safety issues with existing operations.

This report does not state, nor is it assumed, that ANY aircraft flies outside of the aerodromes airspace, all planes must take-off, land and fly within the fly zones. If aircraft do fly below these fly zones then they are in breach the airport license. It is assumed that all planes at Duxford have either a Certificate of Airworthiness or have a Permit to Fly, and if so they should be able to climb within the surface limits. If not, the pilot must assess the risk and be confident it is safe to fly. We would ask to see the documentation that allows for this added risk, such as examples of these planes' Permits to Fly, especially ones that cannot achieve the 3° climb rate.



North Elevation



East Elevation

Rev a - 12.15 - Colours amended
Rev b - 03.16 - Colours amended

0 2 4 6 8 10 1:200

Scale for Town Planning purposes only.

Cladding Colours Key

1. Olive Green RAL 1003020
2. Khaki Green RAL 1006020
3. Light Grey 'Goose wing' RAL 0807005

Project	**Vetspeed**
Drawing	Proposed Building Elevations
Number	Fig. 8 rev b
Scale	1:200 @ A3
Date	December 2015

Notes:

1. New access track to have a rolled stone surface with grass verges as shown, wider on bends and to allow for passing.
2. See separate specification and schedule for planting details.
3. Individual tree planting to be feathered or heavy standard trees, planted into prepared pits and staked - native species around perimeter, more variation within the site, detailed arrangement of species to be determined on site.
4. Woodland edge planting to be native species transplants at 1.5m centres, with some feathered trees.
5. Hedge Type 1 to site perimeter, outside access track, to be double staggered row of native species. Hedge maintained to an ultimate height of 3m.
6. Hedge Type 2, to inside of access track, to be double staggered row of beech, maintained to an ultimate height of 2m. 1.2m high green mesh windbreak fencing to be erected between the hedge and the track to provide some shelter for the plants and initial screening until the hedge becomes established.
7. Woodland edge and hedge planting to be protected from rabbit damage by individual plant shelters - see specification.
8. All planting to take place within the November to March planting season, establishment maintenance for five years after planting to include replacement of dead or failed plants.

Rev. B, April 2016 - revised line to SW boundary
Rev. A, April 2016 - trees added to NW corner

project: Vetspeed, A505, Cambridgeshire

title: **PLANTING PROPOSALS**

Jon Etchells Consulting
Devonshire Business Centre
Works Road
Letchworth
Herts
SG6 1GJ 01462 488221

date: December 2015 | checked: **je**

scale: **1: 750 @ A3** | dwg. no.: **JEC/407/01B**

A505

Track

HGV turning

New reptile exclusion fence

Pond

New access track

Proposed Plan in Context

Rev e - April 2016 - Red and blue line amended

0 10 20 30 40 50 1:1000

Scale for Town Planning purposes only.

N

Project	**Vetspeed**
Drawing	Proposed Site Plan
Number	Fig. 5 Rev e
Scale	1:1000 @ A3
Date	August 2015

Agenda Item No: 5

Summary of Decisions Made Under Delegated Powers

To:	**Planning Committee**
Date:	**21 July 2016**
From:	**Head of Growth and Economy**
Electoral division(s):	**All**
Purpose:	**To consider the above**
Recommendation:	**The committee is invited to note the report**

Officer contact:
Name: Tracy Rockall Post: Planning Co-ordinator E-mail: tracy.rockall@cambridgeshire.gov.uk Tel: 01223 699852

1.0 INTRODUCTION

1.1 At the committee meeting on 31 January 2005 it was agreed that a brief summary of all the planning applications that have been determined by the Head of Strategic Planning under delegated powers would be provided.

1.2 The powers of delegation given to the Head of Strategic Planning (now Head of Growth and Economy) are as set out in the Scheme of Delegation approved by full Council on 17 May 2005 (revised May 2010).

2.0 SUMMARY OF DECISIONS

2.1 4 applications have been granted planning permission under delegated powers during the period between 6 June 2016 and 12 July 2016 as set out below:

1. **F/2002/16/CW** Installation of gas to grid plant, ancillary to existing anaerobic operation. Westry AD Plant, Wisbech Road, MARCH, PE15 0BA

   Decision granted on 13-06-16

   For further information please contact Elizabeth Verdegem on 01223 703569

2. **F/2003/16/CC** Erection of an aluminium frame classroom canopy with a polycarbonate roof and new external door opening with a new connecting path. Kingsfield Primary School, Burnsfield Estate, CHATTERIS, PE16 6ET

   Decision granted on 14/06/16

   For further information please contact Rochelle Duncan on 01223 743814

3. **H/5001/16/CC** Extensions to the existing primary school to include 7 new classrooms, kitchen office and store, existing classroom extension and circulation area resulting in a net gain of 4 classrooms (850sqm, gross external floor area) and internal refurbishment, relocation of existing double mobile classroom during construction works, revised car parking layout and landscaping. Little Paxton Primary School, Gordon Road, Little Paxton, ST. NEOTS, PE19 6NG

   Decision granted on 30-06-16

   For further information please contact Mary Collins on 01223 743840

4. **C/5000/16/CC** Demolition of single storey section of the school and replacement with one and two-storey extensions; reconfiguration of car parking area; installation of new cycle parking spaces; widening of footpath at main access road; new landscaping; extension to hard play area; and associated external works. St Bede's Inter-Church School, Birdwood Road, Cambridge, CB1 3TD

   Decision granted on 07-07-16

   For further information please contact Elizabeth Verdegem on 01223 703569.

Source Documents	Location
Applications files	SH1315, Shire Hall, Cambridge, CB3 0AP